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Galaxy

1963

Clifford D. Simak  
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# Galaxy®

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THE FAITHFUL WIF  
by GORDON R. DICKSON  
END AS A HERO  
by KEITH LAUMER

HERE GATHER THE STARS by CLIFFORD D. SIMAK





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**OF WORMS AND MEN**

A PLANARIAN worm isn't the brightest creature in the world, but he can be taught a few simple tricks. Perhaps "taught" is not the exact word. It is really conditioning, as with Pavlov's dogs. One of the few stimuli that really move a planarian to action is pain . . . or whatever it is that we can call a planarian's equivalent of pain when he is subjected to an electric shock. Sting him with a mild current, flash a light and ultimately — given patience — most of the time he will reward you by reacting to the light with the same faint contraction he originally displayed only for the shock.

Now, once you've got your planarian cringing every time you flash a light on him, you may wonder what else you can do with

him. Here's what: you can chop him up into fine pieces and feed him to other planarians. To planarians, say, which have never been conditioned at all.

You will then find a very odd thing. The planarians who have feasted on their brother, although not themselves conditioned at all, act as though they had been — a little bit. They don't cringe at the light; but if you then begin the conditioning routine on them you will discover that they require far fewer repetitions before they respond strongly.

It is as though the untutored worm, by eating part of his highly educated brother, absorbs enough education with his lunch to skip the first few grades of the Pavlovian course, entering at something like the high school level.

**I**F YOU have a mind to, you can easily make a great leap from this observed fact into the glittering area of generalizations.

Why, that's almost the same, you might say, as eating the heart of a slain enemy warrior in order to absorb his strength. If a worm can get education through his digestive tract, why can't a man acquire virtue the same way? And since this is what primitive savages hold to be true, doesn't this prove once again that modern science has gone all wrong and we ought to go back to the ways of our scienceless forebears?

This perilous leap is taken pretty frequently. We learn that South American witch doctors used a precursor of quinine and Chinese prescribed molds that may have contained penicillin: the leaper concludes that witch doctors must have known plenty we ignorant moderns don't give them credit for. Astrologers foretold human affairs from the position of heavenly bodies, and now we predict radio transmission performance from the cycle of sun-spots; astrology is thus shown to have been on the right track — three millennia ago!

It is an easy leap to take, but it lands you in a thicket of begged questions and dubious inferences every time. The generalizations simply don't work.

— FREDERIK POHL

The observed fact about planarian worms turns out to rest on an essential difference between worms and ourselves. We digest and break down our food. The planarian, a far simpler organism, seems to incorporate whole blocks of its food into its body — and if the bits of what in a planarian pass for "nervous tissue" are conditioned, then part of the cannibal worm is also conditioned. Ancient medicine men did prescribe some potentially valuable drugs. But, look, they prescribed *everything*! — at least, everything that they could force down a sufferer's throat without causing him at once to scream and drop dead; and likely enough they prescribed those things a time or two, too, until the relatives of their late patients began coming after them with spears. And astrology, whatever its (unproven) merits, certainly deserves no credit for predicting upper-atmosphere ionization patterns; the founders of astrology knew of the existence of neither ions nor ionosphere.

One anomalous fact does not make a law. One good guess does not make a science.

It does appear that planarian worms can swallow someone else's conditioning whole. But is that any reason why human beings should?

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# HERE GATHER THE

by CLIFFORD D. SIMAK

*It began on a battlefield a century ago—and it ends tomorrow, with all the galaxy's stars locked in a great clash of conflicting, alien creeds!*

## I

THE NOISE was ended now. The smoke drifted like thin, gray wisps of fog, above the tortured earth and the shattered fences, and the peach trees that had been whittled into toothpicks by cannon fire. For a moment silence, if not peace, fell upon those few square miles of ground where men had fought.

For endless time there had been belching thunder, rolling from horizon to horizon. The

gouted earth spouted in the sky. Horses screamed, mixed with the hoarse bellowing of men; the whistling of metal and the thud when the whistle ended; the flash of searing fire and the brightness of the steel; the bravery of the colors snapping in the wind.

Then it all had ended. There was a silence.

But silence was an alien note upon this field, on this day. It was broken by the whimper of pain, the cry for water and the prayer for death — the crying

# STARS

Illustrated by WOOD

## FIRST OF TWO PARTS

sodden bundles that cried aloud the empty waste of death.

There were proud names that were the prouder now, but now no more than names to echo down the ages — the Iron Brigade, the 5th New Hampshire, the 1st Minnesota, the 2nd Massachusetts, the 16th Maine.

And there was Enoch Wallace.

He still held the shattered musket and there were blisters on his hands. His face was smudged with powder. His shoes were caked with dust and blood.

He was still alive.

DR. ERWIN HARDWICKE rolled the pencil back and forth between his palms, an irritating business. He eyed the man across the desk from him with some calculation.

"What I can't figure out," said Hardwicke, "is why you should come to us."

"Well, you're the National Academy and I thought — "

"And you're Intelligence."

"Look, doctor, if it suits you better, let's call this visit unofficial. Say I'm a puzzled citizen who dropped in to see if you could help."

"It's not that I wouldn't like to help. I don't see how I can. The whole thing is so hazy and so hypothetical."

"Damn it, man," Claude Lewis said, "you can't deny the proof —

and the calling and the whimpering that would go on for hours beneath the summer sun. Later the huddled shapes would grow quiet and still and there would be an odor that would sicken all who passed and the graves would be shallow graves.

There was wheat that never would be harvested. There were trees that would not bloom when spring came round again. On the slope of land that ran up to the ridge were the words unspoken and the deeds undone, and the

the little that I have been able to put my hands on."

"All right, then," said Hardwicke, "let's start over once again and take it piece by piece. You say you have this man."

"His name," said Lewis, "is Enoch Wallace. Chronologically, he is 124 years old. He was born on a farm a few miles from the town of Millville in Wisconsin, April 22, 1840, and he is the only child of Jedediah and Amanda Wallace. He enlisted among the first when Abe Lincoln called for volunteers. He was with the Iron Brigade, which was virtually wiped out at Gettysburg in 1863. But Wallace somehow managed to get transferred to another fighting outfit and fought down across Virginia under Grant. He was in on the end of it at Appomattox."

"You've run a check on him?"

"I've looked up his records. The record of enlistment at the state capitol in Madison. The rest of it, including discharge, here in Washington."

"You say he looks like thirty."

"Not a day beyond it. Maybe even less."

"But you haven't talked with him."

Lewis shook his head.

"He may not be the man. If you had fingerprints . . ."

"At the time of the Civil war," said Lewis, "they'd not thought of fingerprints."

"The last of the veterans of the Civil war," said Hardwicke, "died several years ago. A Confederate drummer boy, I think. There must be some mistake."

Lewis shook his head. "I thought so myself, when I was assigned to it."

"How come you were assigned? How does Intelligence get involved in a deal like this?"

"I'll admit," said Lewis, "that it's a bit unusual. But there were so many implications . . ."

"Immortality, you mean."

**I**T CROSSED our mind, perhaps. But only incidentally. There were other considerations. It was a strange setup that bore looking into."

"But Intelligence . . ."

Lewis grinned. "You are thinking, why not a scientific outfit? Logically, I suppose it should have been. But one of our men ran afoul of it. He was on vacation. Had relatives in Wisconsin. He heard a rumor — just the vaguest casual gossip. So he nosed around a bit. He didn't find out too much, but enough to make him think there might be something to it."

"That's the thing that puzzles me," said Hardwicke. "How could a man live for 124 years in one locality without becoming a celebrity that the world would hear about? Can you imagine what

the newspapers could do with a thing like this?"

Lewis said, "I shudder when I think about it."

"You haven't told me how."

"This," said Lewis, "is a bit hard to explain. You'd have to know the country and the people in it. The southwestern corner of Wisconsin is bounded by two rivers, the Mississippi on the west, the Wisconsin on the north. Away from the rivers there is flat, broad prairie land, rich land, with prosperous farms and towns. But the land that runs down to the river is rough and rugged; high hills and bluffs and deep ravines and cliffs, and there are certain areas forming bays or pockets that are isolated. They are served by inadequate roads and the small, rough farms are inhabited by a people who are closer, perhaps, to the pioneer days of a hundred years ago than they are to the twentieth century. They have cars, of course, and radios, and someday soon, perhaps, even television. But in spirit they are conservative and clannish. Not all the people, of course. Not even many of them. But these little isolated neighborhoods."

"At one time there were a lot of farms in these isolated pockets, but today a man can hardly make a living on a farm of that sort. Slowly the people are being squeezed out of the areas by eco-

nomic circumstances. They sell their farms for whatever they can get for them and move somewhere else, to the cities mostly, where they can make a living."

Hardwicke nodded. "And the ones that are left, of course, are the most conservative and clannish."

"Right. Most of the land now is held by absentee owners who make no pretense of farming it. They may run a few head of cattle on it, but that is all. It's not too bad as a tax write-off for someone who needs that sort of thing. And in the land-bank days a lot of the land was put into the bank."

"You're trying to tell me these backwoods people are engaged in a conspiracy of silence?"

**L**EWIS HESITATED. "Perhaps not anything as formal as that. It is just their way of doing things, a holdover from the old, stout pioneer philosophy. They minded their own business. They didn't want folks interfering with them and they interfered with no one else. If a man wanted to live to be a thousand, it might be a thing of wonder, but it was his own damn business. And if he wanted to live alone and be let alone while he was doing it, that was his business, too. They might talk about it among themselves, but to no one else. They'd

resent it if some outsider tried to talk about it.

"After a time, I suppose, they came to accept the fact that Wallace kept on being young while they were growing old. New generations accepted it because their elders saw in it nothing too unusual — and, anyhow, no one saw much of Wallace. He kept strictly to himself.

"And in the nearby areas the thing, when it was thought of at all, grew to be just another crazy tale that wasn't worth looking into. Maybe just a joke among those folks down Dark Hollow way. A man might look ridiculous if he went prying into it."

"But your man looked into it."

"Yes. Don't ask me why."

"Yet he wasn't assigned to follow up the job."

"He was needed somewhere else. And, besides, he was known back there."

"And you?"

"It took two years of work."

"But now you know the story."

"Not all of it. There are more questions now than there were to start with."

"You've seen this man."

"Many times," said Lewis. "But I've never talked with him. I don't think he's ever seen me. He takes a walk each day before he goes to get the mail. He never moves off the place, you see. The mailman brings out the little stuff

he needs. A bag of flour, a pound of bacon, a dozen eggs, cigars and sometimes liquor."

"But that must be against the postal regulations."

"Of course it is. But mailmen have been doing it for years. The mailmen probably are the only friends he has ever had."

"I take it this Wallace doesn't do much farming."

"None at all. He has a little vegetable garden, but that is all he does. The place has gone back pretty much to wilderness."

"But he has to live. He must get money somewhere."

"He does," said Lewis. "Every five or ten years or so he ships off a fist full of gems to an outfit in New York."

"Legal?"

"If you mean, is it hot, I don't think so. If someone wanted to make a case of it, I suppose there are illegalities."

"And you don't mind?"

"I CHECKED on this firm," said Lewis, "and they were rather nervous. For one thing, they'd been stealing Wallace blind. I told them to keep on buying. I told them that if anyone came around to check, to refer them straight to me. I told them to keep their mouths shut and not change anything."

"You don't want anyone to scare him off," said Hardwicke.

"You're damned right I don't. I want everything to stay just the way it is. And before you ask me where the stones come from, I'll tell you I don't know."

"He maybe has a mine."

"That would be quite a mine. Diamonds and rubies and emeralds, all out of the same mine."

"I would suspect, even at the prices that he gets from them, he picks up a fair income."

Lewis nodded. "Apparently he only sends a shipment in when he runs out of cash. He wouldn't need too much. He lives rather simply to judge from the grub he buys. But he subscribes to a lot of daily papers and news magazines and to dozens of scientific journals. He buys a lot of books."

"Technical books?"

"Some of them, of course, but mostly keeping up with new developments. Physics and chemistry and biology — all that sort of stuff."

"But I don't . . ."

"Of course you don't. Neither do I. He's no scientist. Or at least he has no formal education in the sciences. Back in the days when he went to school there wasn't much of it — not in the sense of today's scientific education. And whatever he learned then would be fairly worthless now in any event. He went through grade school — one of those one-room country schools

— and spent one winter at what was called an academy that operated for a year or two down in Millville village. In case you don't know, that was considerably better than par back in the 1850s. He was, apparently, a fairly bright young man."

Hardwicke shook his head. "It sounds incredible. You've checked on all of this?"

"As well as I could. I had to go at it gingerly. I wanted no one to catch on. And one thing I forgot — he does a lot of writing. He buys these big bound record books, in lots of a dozen at the time. He buys ink by the pint."

**HARDWICKE GOT** up from his desk and paced up and down the room.

"Lewis," he said, "if you hadn't shown me your credentials and if I hadn't checked on them, I'd figure all of this to be a very tasteless joke."

He went back and sat down again. He picked up the pencil and started rolling it between his palms once more.

"You've been on the case two years," he said. "You have no ideas?"

"Not a one," said Lewis. "I'm entirely baffled. That is why I'm here."

"Tell me more of his history. After the war, that is."

"His mother died," said Lewis,

"while he was away. His father and the neighbors buried her right there on the farm. That was the way a lot of people did it then. Young Wallace got a furlough, but not in time to get home for the funeral. There wasn't much embalming done in those days and the traveling was slow. Then he went back to the war. So far as I can find, it was his only furlough. The old man lived alone and worked the farm, batchin' it and getting along all right. From what I can pick up, he was a good farmer, an exceptionally good farmer for his day. He subscribed to some farm journals and was progressive in his ideas. He paid attention to such things as crop rotation and the prevention of erosion. The farm wasn't much of a farm by modern standards, but it made him a living and a little extra he managed to lay by.

"Then Enoch came home from the war and they farmed the place together for a year or so. The old man bought a mower—one of those horse-drawn contraptions with a sickle bar to cut hay or grain. It was the progressive thing to do. It beat a scythe all hollow.

"Then one afternoon the old man went out to mow a hayfield. The horses ran away. Something must have scared them. Enoch's father was thrown off the seat and forward, in front of the sickle

bar. It was not a pretty way to die."

Hardwicke made a grimace of distaste. "Horrible," he said.

"Enoch went out and gathered up his father and got the body to the house. Then he took a gun and went hunting for the horses. He found them down in the corner of the pasture and he shot the two of them, and he left them. I mean exactly that. For years their skeletons lay there in the pasture, where he'd killed them. They were still hitched to the mower until the harness rotted.

"Then he went back to the house and laid his father out. He washed him and he dressed him in the good black suit and laid him on a board, then went out to the barn and carpentered a coffin. And after that, he dug a grave beside his mother's grave. He finished it by lantern light, then went back to the house and sat up with his father. When morning came, he went to tell the nearest neighbor and that neighbor notified the others and someone went to get a preacher. Late in the afternoon they had the funeral and Enoch went back to the house. He has lived there ever since, but he never farmed the land. Except the garden, that is."

**"YOU TOLD** me these people wouldn't talk to strangers. You seem to have learned

a good deal about their peculiar hermit."

"It took two years to do it. I infiltrated them. I bought a beat-up car and drifted into Millville and I let it out that I was a ginseng hunter."

"A what?"

"A ginseng hunter. Ginseng is a plant."

"Yes, I know. But there's been no market for it for years."

"A small market and an occasional one. Exporters will take on some of it. But I hunted other medicinal plants as well and pretended an extensive knowledge of them and their use. Pretended isn't actually the word; I boned up plenty on them."

"The kind of simple soul," said Hardwicke, "those folks could understand. A sort of cultural throwback. And inoffensive, too. Perhaps not quite right in the head."

Lewis nodded. "It worked even better than I thought. I just wandered around and people talked to me. I even found some ginseng. There was one family in particular — the Fisher family. They live down in the river bottoms below the Wallace farm, which sits on the ridge above the bluffs. They've lived there almost as long as the Wallace family, but a different stripe entirely. The Fishers are a coon-hunting, cat-fishing, moonshine-cooking tribe.

They found a kindred spirit in me. I was just as shiftless and no-account as they were. I helped them with their moonshine, both in the making and the drinking. And once in a while the peddling. I went fishing with them and hunting with them, and I sat around and talked and they showed me a place or two where I might find some ginseng. Sang is what they call it. I imagine a social scientist might find a gold mine in the Fishers. There is one girl — a deaf-mute, but a pretty thing — and she can charm off warts."

"I recognize the type," said Hardwicke. "I was born and raised in the southern mountains."

"They were the ones who told me about the team and mower. So one day I went up in that corner of the Wallace pasture and did some digging. I found a horse's skull and some other bones."

"But no way of knowing if it was one of the Wallace horses."

"Perhaps not," said Lewis. "But I found part of the mower as well. Not much left of it, but enough to identify."

"Let's get back to the history," suggested Hardwicke. "After the father's death, Enoch stayed at the farm. He never left it."

Lewis shook his head. "He lives in the same house. Not a

thing's been changed. And the house apparently has aged no more than the man."

"You've been in the house?"

"Not in it. At it. I will tell you how it was."

## II

**H**E HAD an hour. He knew he had an hour, for he had timed Enoch Wallace during the last ten days. And from the time he left the house until he got back with his mail, it had never been less than an hour. Sometimes a little longer, when the mailman might be late, or they got to talking. But an hour, Lewis told himself, was all that he could count on.

Wallace had disappeared down the slope of ridge, heading for the point of rocks that towered above the bluff face, with the Wisconsin river running there below. He would climb the rocks and stand there, with the rifle tucked beneath his arm, to gaze across the wilderness of the river valley. Then he would go back down the rocks again and trudge along the wooded path to where, in proper season, the pink lady slippers grew, and from there up the hill again to the spring that gushed out of the hillside just below the ancient field that had lain fallow for a century or more, and then along the slope until

he hit the almost overgrown road and so down to the mailbox.

In the ten days that Lewis had watched him, his route had never varied. It was likely, Lewis told himself, that it had not varied through the years. Wallace did not hurry. He walked as if he had all the time there was. And he stopped along the way to renew acquaintances with old friends of his — a tree, a squirrel, a flower. He was a rugged man and there still was much of the soldier in him — old tricks and habits left from the bitter years of campaigning under many leaders. He walked with his head held high and his shoulders back, and he moved with the easy stride of one who had known hard marches.

Lewis came out of the tangled mass of trees that once had been an orchard. A few trees, twisted and gnarled and gray with age, still bore their pitiful and bitter crop of apples.

He stopped at the edge of the copse and stood for a moment to stare up at the house on the ridge above. For an instant it seemed to him the house stood in a special light, as if a rare and more distilled essence of the sun had crossed the gulf of space to shine upon this house and to set it apart from all other houses in the world. Bathed in that light, the house was somehow un-

earthly, as if it, indeed, might be set apart as a very special thing. And then the light, if it ever had been there, was gone and the house shared the common sunlight of the fields and woods.

Lewis shook his head and told himself that it had been foolishness, or, perhaps, a trick of seeing. For there was no such thing as special sunlight. The house was no more than a house, although wondrously preserved.

**I**T WAS the kind of house one did not see too often in these days. It was rectangular; long and narrow and high, with old-fashioned gingerbread along the eaves and gables. It had a certain gauntness that had nothing to do with age. It had been gaunt the day it was built. Gaunt and plain and strong, like the people that it sheltered.

But gaunt as it might be, it stood prim and neat, with no peeling paint, with no sign of weathering, and no hint of decay.

Against one end of it was a smaller building, no more than a shed, as if it were an alien structure that had been carted in from some other place and shoved against its end, covering the side door of the house. Perhaps the door, thought Lewis, that led into the kitchen. The shed undoubtedly had been used as a place to hang outdoor clothing and to

leave overshoes and boots, with a bench for milk cans and buckets, and, perhaps, a basket in which to gather eggs. From the top of it extended three feet of stovepipe.

Lewis went up to the house and around the shed. And there, in the side of it, was a door ajar. He stepped up on the stoop, pushed the door wide open and stared in amazement at the room.

For it was not a simple shed. It, apparently, was the place where Wallace lived.

The stove from which the stovepipe projected stood in one corner. It was an ancient cook stove, smaller than the old-fashioned kitchen range. Sitting on its top was a coffee pot, a frying pan and a griddle. Hung from hooks on a board behind it were other cooking implements. Opposite the stove, shoved against the wall, was a three-quarter size four-poster bed, covered with a lumpy quilt, quilted in one of the ornate patterns of many pieces of many-colored cloth that had been the delight of ladies of a century before. In another corner was a table and a chair. Above the table, against the wall, hung a small open cupboard in which were stacked some dishes. On the table stood a kerosene lantern, battered from much usage, but with its chimney clean, as if it had been washed and polished as

recently as this morning, the wick neatly trimmed.

There was no door into the house, no sign there had ever been a door. The clapboard of the house's outer wall ran unbroken to form the fourth wall of the shed.

This was incredible, Lewis told himself — that there should be no door, that Wallace should live here, in this shed, when there was a house to live in. As if there were some reason he should not occupy the house, and yet must stay close by it. Or perhaps as though he were living out a penance of some sort, living here in this shed as a medieval hermit might have lived in a woodland hut or in a desert cave.

He stood in the center of the shed and looked around him, hoping that he might find some clue to this unusual circumstance. But there was nothing, beyond the bare, hard fact of living. Just the very basic necessities — the stove to cook his food and heat the place, the bed to sleep on, the table to eat on and the lantern for its light. Not even so much as an extra hat (although, come to think of it, Wallace never wore a hat) or an extra coat.

No sign of magazines or papers, and Wallace never came home from the mailbox empty-handed. He subscribed to the *New York Times*, the *Wall Street*

*Journal*, the *Christian Science Monitor* and the *Washington Star*, as well as many scientific and technical journals. But there was no sign of them here, nor of the many books he bought. No sign, either, of the bound record books. Nothing at all on which a man could write, nor anything to write with.

**P**ERHAPS, LEWIS told himself, this shed, for some baffling reason, was no more than a show place, a place staged most carefully to make one think that this was where Wallace lived. Perhaps he lived in the house after all. Although, if that were the case, why all this effort, not too successful, to make one think he didn't?

Lewis turned to the door and walked out of the shed. He went around the house until he reached the porch that led up to the front door. At the foot of the steps, he stopped and looked around. The place was quiet. The sun was mid-morning high and the day was warming up. This sheltered corner of the earth stood relaxed and hushed, waiting for the heat.

He looked at his watch and he had forty minutes left, so he went up the steps and across the porch until he came to the door. Reaching out his hand, he grasped the knob and turned — except he

didn't turn it; the knob stayed exactly where it was. His clenched fingers went half around it in the motion of a turn.

Puzzled, he tried again and still he didn't turn the knob. It was as if the knob were covered with some hard, slick coating, like a coat of brittle ice, on which the fingers slipped without exerting any pressure on the knob.

He bent his head close to the knob and tried to see if there were any evidence of coating. There was no evidence. The knob looked perfectly all right. Too all right, perhaps; for it was clean, as if someone had wiped and polished it. There was no dust upon it and no weather specks.

He tried a thumbnail on it and the thumbnail slipped, but left no mark behind it. He ran his palm over the outer surface of the door and the wood was slick. The rubbing of the palm set up no friction. The palm slid along the wood as if the palm were greased, but there was no sign of grease. There was no indication of anything to account for the slickness of the door.

Lewis moved from the door to the clapboard and the clapboard was also slick. He tried palm and thumbnail on it and the answer was the same. There was something covering this house which made it slick and smooth — so smooth that dust could not cling

upon its surface nor could weather stain it.

He moved along the porch until he came to a window. And now, as he stood facing the window, he realized something he had not noticed before, something that helped make the house seem gaunter than it really was. The windows were black.

There were no curtains, no drapes, no shades. They were simply black rectangles, like empty eyes staring out of the bare skull of the house.

He moved closer to the window and put his face up to it, shading the sides of his face, next to the eyes, with his upheld hands to shield out the sunlight. But even so he could not see into the room beyond. He stared, instead, into a pool of blackness, and the blackness, curiously enough, had no reflective qualities.

He could not see himself reflected in the glass. He could see nothing but the blackness, as if the light hit the window and was absorbed by it, sucked in and held by it. There was no bouncing back of light once it had hit that window.

He left the porch and went slowly around the house, examining it as he went. The windows were all blank, black pools that sucked in the captured light and all the exterior was slick and hard.



HE POUNDED the clapboard with his fist. It was like pounding a rock. He examined the stone walls of the basement where they were exposed, and the walls were smooth and slick. There were mortar gaps between the stones and in the stones themselves one could see uneven surfaces. But the hand rubbed across the wall could detect no roughness.

An invisible something had been laid over the roughness of the stone, just enough of it to fill in the pits and uneven surfaces. But one could not detect it. It was almost as if it had no substance.

Straightening up from his ex-

amination of the wall, Lewis looked at his watch. There were only ten minutes left. He must be getting on.

He walked down the hill toward the tangle of old orchard. At its edge, he stopped and looked back and now the house was different. It was no longer just a structure. It wore a personality, a mocking, leering look and there was a malevolent chuckle bubbling inside of it, ready to break out.

Lewis ducked into the orchard and worked his way in among the trees. There was no path and beneath the trees the grass and weeds grew tall. He ducked the drooping branches and walked

around a tree that had been uprooted in some windstorm of many years before.

He reached up as he went along, picking an apple here and there, scrubby things and sour. He took a single bite out of each one of them, then threw them away; for there were none of them that was fit to eat, as if they might have taken from the neglected soil a certain basic bitterness.

At the far side of the orchard he found the fence and the graves that it enclosed.

Here the weeds and grass were not so high and the fence showed signs of repair made rather recently. At the foot of each grave,

opposite the three crude native limestone headstones, was a peony bush, each of them a great straggling mass of plants that had grown undisciplined for years.

Standing before the weathered picketing, he knew that he had stumbled on the Wallace family burial plot.

But there should have been only the two stones. What about the third?

He moved around the fence to the sagging gate and went into the plot. Standing at the foot of the graves, he read the legends on the stone. The carving was angular and rough, giving evidence of having been executed by unaccustomed hands. There

were no pious phrases, no lines of verse, no carvings of angels or of lambs or of other symbolic figures such as had been in the vogue in the 1860s. There were just the names and dates.

On the first stone: Amanda Wallace 1821-1863

And on the second stone: Jeddah Wallace 1816-1866

And on the third stone—

### III

**GIVE ME THAT** pencil, please," said Lewis.

Hardwicke quit rolling it between his palms and handed it across.

"Paper, too?" he asked.

"If you please," said Lewis.

He bent above the desk and drew rapidly.

"Here," he said, handing back the paper.

Hardwicke wrinkled his brow.

"But it makes no sense," he said. "Except for that figure underneath."

"The figure eight, lying on its side. Yes, I know. The symbol for infinity."

"But the rest of it?"

"I don't know," said Lewis. "It is the inscription on the tombstone. I copied it . . ."

"And you know it now by heart."

"I should. I've studied it enough."

"I've never seen anything like it in my life," said Hardwicke. "Not that I'm an authority. I really know little at all in this field."

"You can put your mind at rest. It's nothing that anyone knows anything about. It bears no resemblance, not even the remotest, to any language or any known inscription. I checked with men who know. Not one, but a dozen of them. I told them I'd found it on a rocky cliff. I am sure that most of them think I am a crackpot. One of those people who are trying to prove that the Romans or the Phoenicians or the Irish or whatnot had pre-Columbian settlements in America."

Hardwicke put down the sheet of paper.

"I can see what you mean," he said, "when you say you have more questions now than when you started. Not only the question of a young man more than a century old, but likewise the matter of the slickness of the house and the third gravestone with the undecipherable inscription. You say you've never talked with Wallace?"

"No one talks to him except the mailman. He goes out on his daily walks and he packs this gun."

"People are afraid to talk with him?"

"Because of the gun, you mean?"

"Well, yes, I suppose that was in the back of my mind. I wondered why he carried it."

**L**EWIS SHOOK his head. "I don't know. I've tried to tie it in, to find some reason he always has it with him. He has never fired the rifle so far as I can find. But I don't think the rifle is the reason no one talks with him. He's an anachronism, something living from another age. No one fears him, I am sure of that. He's been around too long for anyone to fear him. Too familiar. He's a fixture of the land, like a tree or boulder. And yet no one feels quite comfortable with him, either, I would imagine that most of them, if they should come face to face with him, would feel uncomfortable. For he's something they are not. Something greater than they are, and at the same time a good deal less.

As if he were a man who had walked away from his own humanity. I think that secretly many of his neighbors may be a bit shamed by him, shamed because he has, somehow, perhaps ignobly, sidestepped growing old — one of the penalties, but perhaps also one of the rights of all humankind. And perhaps this secret shame may contribute in some part to their unwillingness

to talk about him to strangers like us."

"You spent a good deal of time watching him?"

"There was a time I did. But now I have a crew. They watch on regular shifts. We have a dozen spots we watch from and we keep shifting them around. There isn't an hour, day in, day out, that the Wallace house isn't under observation."

"This business really has you people bugged."

"I think with reason," Lewis said. "There is still one other thing."

He bent over and picked up the briefcase he had placed beside his chair. Unsnapping it, he took out a sheaf of photographs and handed them to Hardwicke.

"What do you make of these?" he asked.

Hardwicke picked them up. Suddenly he froze. The color drained out of his face. His hands began to tremble and he laid the pictures carefully on the desk. He had looked at only the top one; not any of the others.

Lewis saw the question in his face.

"In the grave," he said. "The one beneath the headstone with the funny writing."

**T**HE MESSAGE machine whistled shrilly. Enoch Wallace put away the book in which he had

been writing and got up from his desk.

He walked across the room to the whistling machine. He punched a button and shoved a key and the whistling stopped.

The machine built up its hum and the message began to form on the plate, faint at first and then becoming darker until to stood out clearly. It read:

NO. 406301 TO STATION 18327. TRAVELER AT 16097-38. NATIVE THUBAN VI. NO BAGGAGE. NO. 3 LIQUID TANK. SOLUTION 27. DEPART FOR STATION 12892 AT 16439.16. CONFIRM.

Enoch glanced up at the great galactic chronometer hanging on the wall. There was almost three hours to go.

He touched a button and a thin sheet of metal, bearing the message, protruded from the side of the machine. Beneath it, the duplicate fed itself into the record file. The machine chuckled and the message plate was clear once more and waiting.

Enoch pulled out the metal plate, threaded the holes in it through the double filing spindle and then dropped his fingers to the keyboard and typed: NO. 406301 RECEIVED. CONFIRM MOMENTARILY. The message came into being on the plate and he left it there.

Thuban VI? Had there been,

he wondered, one of them before? As soon as he got his chores done, he would go to the filing cabinet and check.

It was a liquid-tank case and those, as a rule, were the most uninteresting of all. They usually were hard ones to strike up a conversation with, because too often their concept of language was too difficult to handle. And, as often, too, their very thinking processes proved too divergent to provide much common ground for communication.

Although, he recalled, that was not always true. There had been that tank traveler several years ago, from somewhere in Hydra (or had it been the Hyades?) he'd sat up the whole night with and almost failed of sending off on time, yarning through the hours, their communication (you couldn't call it words) tumbling over one another as they packed into the little time they had a lot of fellowship and, perhaps, some brotherhood.

He, or she, or it — they'd never got around to that — had not come back again. And that was the way it was, thought Enoch. Very few came back. By far the greater part of them were just passing through.

**B**UT ENOCH had him, or her, or it (whichever it might be) down in black and white. In

fact he had all of them, every single blessed one of them, down in black and white. It had taken him, he remembered, almost the entire following day, crouched above his desk, to get it written down; all the stories he'd been told, all the glimpses he had caught of a far and beautiful and tantalizing land (tantalizing because there was so much of it he could not understand), all the warmth and comradeship that had flowed between himself and this misshapen, twisted, ugly living being from another world. And any time he wished, any day he wished, he could take down the journal from the row of journals and relive that night again. Although he never had. It was strange, he thought, how there was never time, or never seemed to be the time, to thumb through and re-read in part what he'd recorded through the years.

He turned from the message machine and rolled a No. 3 liquid tank into place beneath the materializer, positioning it exactly and locking it in place. Then he pulled out the retracting hose and thumbed the selector over to No. 27. He filled the tank and let the hose slide back into the wall.

Back at the machine, he cleared the plate and sent off his confirmation that all was ready for the traveler from Thuban. He got back re-confirmation from

the other end, then threw the machine to neutral, ready to receive again.

He went from the machine to the filing cabinet that stood next to his desk and pulled out a drawer jammed with filing cards. He looked and Thuban VI was there, keyed to August 22, 1931. He walked across the room to the wall filled with books and rows of magazines and journals, filled from floor to ceiling, and found the record book he wanted. Carrying it, he walked back to his desk.

August 22, 1931, he found, when he located the entry, had been one of his lighter days. There had been one traveler only, the one from Thuban VI. And although the entry for the day filled almost a page in his small, crabbed writing, he had devoted no more than one paragraph to the visitor.

*Came today, it read, a blob from Thuban VI. There is no other way in which one might describe it. It is simply a mass of matter, presumably of flesh, and this mass seems to go through some sort of rhythmic change in shape, for periodically it is globular, then begins to flatten out until it lies in the bottom of the tank, somewhat like a pancake. Then it begins to contract and to pull in upon itself, until finally it is a ball again. This change is*

*rather slow and definitely rhythmic, but only in the sense that it follows the same pattern. It seems to have no relation to time. I tried timing it and could detect no time pattern. The shortest period needed to complete the cycle was seven minutes and the longest was eighteen. Perhaps over a longer period one might be able to detect a time rhythm, but I didn't have the time. The semantic translator did not work with it, but it did emit for me a series of sharp clicks, as if it might be clicking claws together, although it had no claws that I could see. When I looked this up in the pasimology manual I learned that what it was trying to say was that it was all right, that it needed no attention, and please leave it alone. Which I did thereafter.*

And at the end of the paragraph, jammed into the little space that had been left, was the notation: *See Oct. 16, 1931.*

**H**E TURNED the pages until he came to October 16 and that had been one of the days, he saw, that Ulysses had arrived to inspect the station.

His name, of course, was not Ulysses. As a matter of fact, he had no name at all. Among his people there was no need of names; there was other identifying terminology which was far

more expressive than mere names. But this terminology, even the very concept of it, was such that it could not be grasped, much less put to use, by human beings.

"I shall call you Ulysses," Enoch recalled telling him, that first time they had met. "I need to call you something."

"It is agreeable," said the then strange being (but no longer strange). "Might one ask why the name Ulysses?"

"Because it is the name of a great man of my race."

"I am glad you chose it," said the newly-christened being. "To my hearing it has a dignified and noble sound and, between the two of us, I shall be glad to bear it. And I shall call you Enoch, for the two of us shall work together for many of your years."

And it had been many years, thought Wallace, with the record book open to that October entry of more than thirty years ago. Years that had been satisfying and enriching in a way that one could not have imagined until it had all been laid out before him.

And it would go on, he thought, much longer than it already had gone on. For many centuries more. For a thousand years, perhaps. And at the end of that thousand years, what would he know then?

Although, perhaps, he thought,

the knowing was not the most important part of it.

And none of it, he knew, might come to pass, for there was interference now. There were watchers, or at least a watcher. The fellow who posed as a ginseng hunter. Before too long whoever it might be might start closing in. What he'd do or how he'd meet the threat, he had no idea until that moment came. It was something that had been bound to happen. It was something he had been prepared to have happen all these years. There was reason to wonder that it had not happened sooner.

He had told Ulysses of the danger of it that first day they'd met. He'd been sitting on the steps that led up to the porch, and thinking of it now, he could remember it as clearly as if it had been only yesterday.

#### IV

**H**E WAS sitting on the steps and it was late afternoon. He was watching the great, white thunderheads that were piling up across the river beyond the Iowa hills.

The day was hot and sultry, without a breath of moving air. Out in the barnyard a half a dozen bedraggled chickens scratched listlessly, for the sake of going through the motions, it

seemed, rather than from any hope of finding food. The sound of the sparrows' wings, as they flew between the gable of the barn and the hedge of honeysuckle that bordered the field beyond the road, was harsh and dry sound, as if their feathers had grown stiff in the heat.

And here he sat, he thought, staring at the thunderheads when there was work to do. Corn to be plowed. Hay to be gotten in. Wheat soon to put in shock.

For, despite whatever might have happened, a man still had a life to live. Days had to be gotten through the best that one could manage. It was a lesson, he reminded himself, that he should have learned in all its fullness in the last few years. But war was somehow different than what had happened here. In war you knew it and expected it. You were ready when it happened; but this was not the war. This was the peace to which he had returned.

A man had a right to expect that in the world of peace there really would be peace, fencing out the violence and the horror.

Now he was alone, as he'd never been alone before. Now, if ever, could be a new beginning. Perhaps now there had to be a new beginning. But whether it was here, on the homestead acres, or in some other place, it still

would be a beginning of bitterness and anguish.

He sat on the steps, with his wrists resting on his knees, and watched the thunderheads piling in the west. It might mean rain. The land could use the rain. Or it might be nothing, for above the merging river valleys the air currents were erratic. There was no way a man could tell where those clouds might flow.

He did not see the traveler until he turned in at the gate. He was tall and gangling, and his clothes were dusty. From the appearance of him he had walked a far way. He came up the path and Enoch sat waiting for him, watching him but not stirring from the steps.

"Good day, sir," Enoch finally said. "It's a hot day to be walking. Why don't you sit a while?"

"Quite willingly," said the stranger. "But first, I wonder, could I have a drink of water?"

Enoch got up to his feet. "Come along. I'll pump a fresh one for you."

He went down across the barnyard until he reached the pump. He unhooked the dipper from where it hung upon a bolt and handed it to the man. He grasped the handle of the pump and worked it up and down.

"Let it run a while," he said. "It takes a time for it to get real cool."

The water splashed out of the spout, running on the boards that formed the cover of the well. It came in spurts as Enoch worked the handle.

"Do you think," the stranger asked, "that it is about to rain?"

"A man can't tell," said Enoch. "We have to wait and see."

**T**HREE WAS something about this traveler that disturbed him. Nothing, actually, that one could put a finger on, but a certain strangeness that was vaguely disquieting. He watched him narrowly as he pumped and decided that probably this stranger's ears were just a bit too pointed at the top. Then he put it down to his imagination, for when he looked again they seemed to be all right.

"I think," said Enoch, "that the water should be cold by now."

The traveler put down the dipper and waited for it to fill. He offered it to Enoch. Enoch shook his head.

"You first. You need it worse than I do."

The stranger drank greedily and with much slobbering.

"Another one?" asked Enoch.

"No, thank you," said the stranger. "But I'll catch another dipper full for you, if you wish me to."

Enoch pumped and when the dipper was full, the stranger handed it to him. The water was



cold. Enoch, realizing for the first time that he had been thirsty, drank it almost to the bottom.

He hung the dipper back on its bolt and said to the man: "Now, let's get in that sitting."

The stranger grinned. "I could do with some of it," he said.

Enoch pulled a red bandanna from his pocket and mopped his face. "The air gets close," he said, "just before a rain."

And as he mopped his face, quite suddenly he knew what it was that had disturbed him about the traveler.

Despite his bedraggled clothes and his dusty shoes, which attested to long walking, despite the heat of this time-before-a-rain, the stranger was not sweating. He appeared as fresh and cool as if he had been lying at his ease beneath a tree in spring-time.

Enoch put the bandanna back into his pocket. They walked back to the steps and sat there, side by side.

"You've traveled a far way," said Enoch, gently prying.

"Very far, indeed," the stranger told him. "I'm a right smart piece from home."

"And you have a far way yet to go?"

"No," the stranger said, "I believe that I have got to the place where I am going."

"You mean . . ." asked Enoch,

and left the question hanging.

"I mean right here," said the stranger, "sitting on these steps. I have been looking for a man and I think that man is you. I did not know his name nor where to look for him, but yet I knew that one day I would find him, and now I have."

"BUT ME," Enoch said, astonished. "Why should you look for me?"

"I was looking for a man of many different parts. One of the things about him was that he must have looked up at the stars and wondered what they were."

"Yes," said Enoch, "that is something I have done. On many nights, camping in the field, I have lain in my blankets and looked up at the sky, looking at the stars and wondering what they were and how they'd been put up there and, most important of all, why they had been put up there. I have heard some way that each of them is another sun like the sun that shines on Earth. But I don't know about that. I guess there is no one who knows too much about them."

"There are some," the stranger said, "who know a deal about them."

"You, perhaps," said Enoch, mocking just a little, for the stranger did not look like a man who'd know much of anything.

"Yes, I," the stranger said. "Although I do not know as much as many others do."

Enoch said, "I've sometimes wondered if the stars are other suns, might there not be other planets and other people, too."

He remembered sitting around the campfire of a night, jawing with the other fellows to pass away the time. And once he'd mentioned this idea of maybe other people on other planets circling other suns. And the fellows all had jeered him and for days afterwards had made fun of him, so he had never mentioned it again. Not that it mattered much, for he had no real belief in it himself. It had never been more than campfire speculation.

And now he'd mentioned it again and to an utter stranger. He wondered why he had.

"You believe that?" asked the stranger.

Enoch said: "It was just an idle notion."

"Not so idle," said the stranger. "There are other planets and there are other people. I am one of them."

"But you . . ." cried Enoch, then was stricken into silence.

For the stranger's face had split and began to fall away and beneath it he caught the glimpse of another face that was not a human face.

And even as the false human

face sloughed off that other face, a great sheet of lightning went crackling across the sky and the heavy crash of thunder seemed to shake the land, and from far off he heard the rushing of the rain as it charged across the hills.

## V

THAT WAS how it started, Enoch thought, almost a hundred years ago. The campfire fantasy had turned into solid fact.

The Earth now was on galactic charts, a way station for many different peoples traveling star to star. Strangers once, but now there were no strangers. There were no such things as strangers. In whatever form, with whatever purpose, all of them were people.

He looked back at the entry for Oct. 16, 1931 and ran through it swiftly. There, near the end of it was the sentence: *Ulysses says the Thubans from planet VI are perhaps the greatest mathematicians in the galaxy. It seems they have developed a numeration system superior to any in existence, especially valuable in the handling of statistics.*

He closed the book and sat quietly in the chair, wondering if the statisticians of Mizar X knew of the Thubans' work. Perhaps they did, he thought. Certainly some of the math they used was unconventional.

He pushed the record book to one side and dug into a desk drawer, bringing out his chart. He spread it flat on the desk before him and puzzled over it. If he could be sure, he thought. If he only knew the Mizar statistics better. For the last ten years or more he had labored at the chart, checking and rechecking all the factors against the Mizar system, testing again and again to determine whether the factors he was using were the ones he should be using.

He raised a clenched fist and hammered at the desk. If he only could be certain! If he could only talk with someone.

But that had been something that he had shrank from doing, for it would be equivalent to showing the very nakedness of the human race.

He still was human. Funny, he thought, that he should stay human, that in a century of association with these beings from the many stars he should have, through it all, remained a man of Earth.

For in many ways, his ties with Earth were cut. Old Winslowe Grant was the only human he ever talked with now. His neighbors shunned him. There were no others, unless one could count the watchers, and those he seldom saw — only glimpses of them, only the places they had been.

Only old Winslowe Grant and Mary and the other people from the shadow who came occasionally to spend lonely hours with him.

That was all of Earth he had. Old Winslowe and the shadow people and the homestead acres that lay outside the house — but not the house itself, for the house was alien now.

**H**E SHUT his eyes and remembered how the house had been in the olden days.

There had been a kitchen, in this same area where he was sitting, with the iron cook stove, black and monstrous, in its corner, showing its row of fiery teeth along the slit made by the grate. Pushed against the wall had been the table where the three of them used to eat. He could remember how that table looked, with the vinegar cruet and the glass that held the spoons and the lazy Susan with the mustard, horseradish and chili sauce sitting in a group, a sort of centerpiece in the middle of the red checkered cloth that the table wore.

There had been a winter night when he had been, it seemed, no more than three or four. His mother was busy at the stove with supper. He was sitting on the floor in the center of the kitchen, playing with some blocks, and outside he could hear

the muffled howling of the wind as it prowled along the eaves. His father had come in from milking at the barn, and a gust of wind and a swirl of snow had come into room with him. Then he'd shut the door and the wind and snow were gone, shut outside this house, condemned to the outer darkness and the wilderness of night. His father had set the pail of milk that he had been carrying on the kitchen sink and Enoch saw that his beard and eyebrows were coated with snow and there was frost on the whiskers all around his mouth.

He held that picture still, the three of them like historic mannikins posed in a cabinet in a museum — his father with the frost upon his whiskers and the great felt boots that came up to his knees; his mother with her face flushed from working at the stove and the lace cap upon her head; and himself upon the floor, playing with the blocks.

There was one other thing that he remembered, perhaps more clearly than all the rest of it. There was a great lamp sitting on the table. On the wall behind it hung a calendar and the glow of the lamp fell like a spotlight upon the picture on the calendar.

There was Old Santa Claus, riding in his sleigh through a woodland track and all the little woodland people had turned out

to watch him pass. A great moon hung above the trees and there was thick snow on the ground. A pair of rabbits sat there, gazing soulfully at Santa, and a deer beside the rabbits, with a raccoon just a little distance off, ringed tail wrapped about his feet, and a squirrel and chickadee side by side upon an overhanging branch. Old Santa had his whip raised high in greeting. His cheeks were red and his smile was merry, and the reindeer hitched to his sled were fresh and spirited and proud.

Through all the years this mid-nineteenth century Santa had ridden down the snowy aisles of time, with his whip uplifted in happy greeting to the woodland creatures. And the golden lamp-light had ridden with him, still bright upon the wall and the checkered table cloth.

So, thought Enoch, some things do endure — the memory of the snug warmth of a childhood kitchen on a stormy winter night.

**B**UT THE endurance was of the spirit and the mind, for nothing else endured. There was no kitchen now, nor no sitting room with its old-fashioned sofa and the rocking chair; no back parlor with its stuffy elegance of brocade and silk, no guest bedroom on the first and no family bedrooms on the second floor.

It all was gone. Only one room remained.

The second story floor and all partitions had been stripped away. Now the house was one great room. One side of it was the galactic station. The other side the living space for the keeper of the station. There was a bed over in one corner, and a stove that worked on no principle known on Earth, and a refrigerator that was of alien make. The walls were lined with cabinets and shelves, stacked with magazines and books and journals.

There was just one thing left from the early days, the one thing Enoch had not allowed the alien crew that had set up the station to strip away — the massive old fireplace of brick and native stone that had stood against one wall of the sitting room. It still stood there, the one reminder of the days of old; the one thing left of Earth, with its great, scarred oak mantle that his father had carved out with a broadaxe from a massive log and smoothed by hand with plane and draw-shave.

On the fireplace mantle and strewn on shelf and table were articles and artifacts that had no earthly origin and some no earthly names — the steady accumulation through the years of the gifts from friendly travelers.

Some of them were functional. Others were to look at only. And there were other things that were entirely useless, because they had little application to a member of the human race or were inoperable on Earth, and many others of the purpose of which he had no idea, accepting them, embarrassed, with many stumbling thanks, from the well-meaning folks who had brought them to him.

And on the other side of the room stood the intricate mass of machinery, reaching well up into the open second story, that wafted passengers through the space that stretched from star to star.

An inn, he thought. A stopping place. A galactic crossroads.

He rolled up the chart and put it back into the desk. The record book he put away in its proper place among all the other record books upon the shelf.

He glanced at the galactic clock upon the wall, and it was time to go.

**H**E PUSHED the chair tight against the desk and shrugged into the jacket that hung upon the chair back. He picked the rifle off the supports that held it on the wall. Then he faced the wall itself and said the single word that he had to say.

The wall slid silently back. He

stepped through it into the little shed with its sparse furnishings. Behind him the section of the wall slid closed and there was nothing there to indicate it was anything but a solid wall.

Enoch stepped out of the shed. It was a beautiful late summer day. In a few weeks now, he thought, there'd be the signs of autumn and a strange chill in the air. The first goldenrods were blooming now, and he'd noticed, just the day before, that some of the early asters down in the ancient fence row had started to show color.

He went around the corner of the house and headed toward the river, striding down the long deserted field that was overrun with hazel brush and occasional clumps of trees.

This was the Earth, he thought — a planet made for Man. But not for Man alone, for it was as well a planet for the fox and owl and weasel, for the snake, the katydid, the fish, for all the other teeming life that filled the air and earth and water. And not these natives alone, but for other beings that called other earths their home, other planets that, far light-years distant, were basically the same as Earth. For Ulysses and the Hazers and all the rest of them who could live upon this planet, if need be, if they wished, with no discomfort and no arti-

ficial aids, as readily as they had been born here.

Our horizons are so far, he thought, and we see so little of them. Even now, with flaming rockets striving from Canaveral to break the ancient bonds, we dream so little of them.

The ache was there. The ache that had been growing, the ache to tell all mankind those things that he had learned. Not so much the specific things, although there were some of them that mankind well could use, but the general things — the unspecific, central fact that there was intelligence throughout the universe. That Man was not alone; that if he only found the way he need never be alone again.

He went down across the field and through the strip of woods and came out on the great out-thrust of rock that stood atop the cliff that faced the river. He stood there, as he had stood on thousands of other mornings, and stared out at the river, sweeping in majestic blue and silver through the wooded bottom-land.

Old, ancient water, he said, talking silently to the river, you have seen it happen — the mile-high faces of the glaciers that came and stayed and left, creeping back toward the pole inch by stubborn inch, carrying the melting water from those very glaciers in a flood that filled this

valley with a tide such as now is never known; the mastodon and the sabre-tooth and the bear-sized beaver that ranged these olden hills and made the night clamorous with trumpeting and screaming; the silent little bands of men who trotted in the woods or clambered up the cliffs or paddled on your surface, woods-wise and water-wise, weak in body, strong in purpose, and persistent in a way no other thing ever was persistent, and just a little time ago that other breed of men who carried dreams within their skulls and cruelty in their hands and the awful sureness of an even greater purpose in their hearts. And before that, for this is ancient country beyond what is often found, the other kinds of life and the many turns of climate and the changes that came upon the Earth itself. And what think you of it? he asked the river. For yours is the memory and the perspective and the time. By now you should have the answers. Or at least some of the answers.

As Man might have some of the answers had he lived for several million years — as he might have the answers several million years from this very summer morning, if he still should be around.

I could help, thought Enoch. I could not give the answers, but

I could help Man in his scramble after them. I could give him faith and hope and I could give purpose such as he has not had before.

But he knew he dared not do it.

**FAR BELOW** a hawk swung in lazy circles above the highway of the river. The air was so clear that Enoch imagined, if he strained his eyes a little, he could see every feather in those outspread wings.

There was almost a fairy quality to this place, he thought. The far look and the clear air. The feeling of detachment that touched almost on greatness of the spirit. As if this were a special place, one of those special places that each man must seek out for himself, and count himself as lucky if he ever found it; for there were those who sought and never found it. Worst of all, there were even those who never hunted for it.

He stood upon the rock and stared out across the river, watching the lazy hawk and the sweep of water and the green carpeting of trees. His mind went up and out to those other places until his mind was dizzy with the thought of it. And then he called it home.

He turned slowly and went back down the rock and moved

off among the trees, following the path he'd beaten through the years.

He considered going down the hill a ways to look in on the patch of pink lady slippers, to see how they might be coming, to try to conjure up the beauty that would be his again in June, but decided that there'd be little point to it. They were well hidden in an isolated place. Nothing could have harmed them. There had been a time, a hundred years ago, when they had bloomed on every hill. Then he had come trailing home with great armloads of them, which his mother had put in the great brown jug she had and for a day or two the house had been filled with the heaviness of their rich perfume. But they were hard to come by now. The trampling of pastured cattle and flower-hunting humans had swept them from the hills.

Some other day, he told himself, some day before first frost, he would visit them again to satisfy himself that they'd be there in spring.

He stopped a while to watch a squirrel as it frolicked in an oak. He squatted down to follow a snail which had crossed his path. He stopped beside a massive tree and examined the pattern of the moss that grew upon its trunk. And he traced the wanderings of a silent, flitting songbird as it

fluttered from tree to tree.

He followed the path out of the woods and along the edge of the field until he came to the spring that bubbled from the hillside.

Sitting beside the spring was a woman. He recognized her as Lucy Fisher, the deaf-mute daughter of Hank Fisher who lived down in the river bottoms.

**H**E STOPPED and watched her and thought how full she was of grace and beauty, the natural grace and beauty of a primitive and lonely creature.

She was sitting by the spring with one hand uplifted. She held in it, at the tips of long and sensitive fingers, something that glowed with color. Her head was held alert and high, and her slender body had the same almost startled look of quiet alertness.

Enoch moved slowly forward and stopped, not more than three feet behind her.

The thing of color on her fingertips was one of those large gold and red butterflies that come with the end of summer. One wing of the insect stood erect and straight, but the other was bent and crumpled and had lost some of the dust that lent sparkle to the color.

She was not actually holding the butterfly. It was standing on one fingertip, the one good wing



fluttering very slightly every now and then to maintain its balance.

But perhaps he had been mistaken in thinking that the second wing was injured, for now he could see that somehow it had been simply bent and distorted. Now it was straightening slowly. The dust (if it ever had been gone) was back on it again, and it was standing up with the other wing.

He stepped around the girl, and when she saw him there was no start of surprise. That would be quite natural. She must be accustomed to it — someone coming up behind her and suddenly being there.

Her eyes were radiant, as if she had experienced some ecstasy of the soul. And he found himself wondering again, as he did each time he saw her, what it must be like for her, living in a world of two-way silence, perhaps not entirely unable to communicate, but at least barred from that free flow of communication which was the birthright of the human animal.

There had been, he knew, several attempts to establish her in a state school for the deaf, but each had been a failure. Once she'd run away and wandered days before being finally found and returned to her home. And on other occasions she had gone on disobedience strikes, refusing

to co-operate in any of the teaching.

**WATCHING HER** as she sat there with the butterfly, Enoch thought he knew the reason. She had a world of her very own. One to which she was accustomed and knew how to get along in. In that world she was no cripple, as she most surely would have been a cripple if she had been pushed, part way, into the normal human world.

What good to her the hand alphabet or the reading of the lips if they should take away her inner serenity of spirit?

She was a creature of the woods and hills, of springtime flower and autumn flight of birds. She knew these things and lived with them. She was, in some way, a part of them, one who dwelt apart in an old and lost apartment of the natural world. She occupied a place that Man long since had abandoned, if, in fact, he'd ever held it.

And there she sat, alive, thought Enoch, as no other thing he knew had ever been alive.

The butterfly spread its wings and floated off her finger. Unconcerned, unfrightened, it fluttered up across the wild grass and the goldenrod of the field.

She pivoted to watch it until it disappeared, then turned to Enoch. She smiled and made a

fluttery motion with her hands, like the fluttering of the red and golden wings. But there was something else in it, as well — a sense of happiness and well-being, as if she might be saying that the world was going fine.

If, Enoch thought, I could only teach her the pasimology of my galactic people. Then we could talk, the two of us, almost as well as with the flow of words on the human tongue. Given the time, he thought, it might not be too hard. There was a natural and a logical process to the galactic sign language that made it almost instinctive once one had caught the underlying principle.

Throughout the Earth as well, in the early days, there had been sign languages. But Earth's best was only a crutch that allowed a man to hobble when he couldn't run. Whereas that of the galaxy was in itself a language, developed through millenia, with many different peoples making contributions. It had been refined and shaken down and polished until today it was a communications tool that stood on its own merits.

There was need for such a tool, for the galaxy was Babel. Even the galactic science of pasimology could not surmount all the obstacles, could not guarantee, in certain cases, the basic minimum of communication. For not only were there millions of

tongues, but those other languages as well which could not operate on the principle of sound because the races were incapable of sound. Even sound failed when the race talked in ultrasonics others could not hear. There was telepathy, of course; but for every telepath, there were a thousand races that had telepathic blocks. There were many who got along on sign languages alone and others who could communicate only by a written or pictographic system, including some who carried chemical blackboards built into their bodies. And there was that sightless, deaf and speechless race from the mystery stars of the far side of the galaxy who used what was perhaps the most complicated of all the galactic languages — a code of signals routed along their nervous systems.

Enoch had been at the job almost a century. Even so, even with the aid of the universal sign language and the semantic translator, which was little more than a pitiful (although complicated) mechanical contrivance, he still was hard put at times to know what many of them said.

**L**UCY FISHER picked up a cup fashioned of a strip of folded birch bark, dipped it in the spring and held it out to Enoch. He stepped close and

knelt to drink from it. It was not entirely watertight. Water ran from it down across his arm, wetting the cuff of shirt and jacket.

He finished and handed back the cup. She took it in one hand and reached out the other, to brush across his forehead with the tip of gentle fingers.

He did not speak to her. Long ago he had ceased talking to her, sensing that the movement of his mouth, making sounds she could not hear, might be embarrassing.

Instead he put out a hand and laid his broad palm against her cheek for a moment. Then he got to his feet. For a moment their eyes looked into the other's eyes and then turned away.

He crossed the little stream that ran down from the spring and took the trail that led from the forest's edge across the field, heading for the ridge. Halfway up the slope, he turned around and saw that she was watching him. He held up his hand in a gesture of farewell and her hand gestured in reply.

It had been, he recalled, twelve years or more ago that he first had seen her, a little fairy person of ten or so, a wild thing running in the woods. They had become friends only after a long time, although he saw her often. She roamed the hills and valley

as if they were a playground for her — which, of course, they were.

Through the years he had watched her grow, often meeting her on his daily walks. Between the two of them had grown up the understanding of the lonely and the outcast, or something more than that. Each had a world that was his own, a world that had given him an insight into something that others seldom saw. Not that either, Enoch thought, ever told the other, or tried to tell the other, of these private worlds. But the fact of the private worlds was there, providing a firm foundation for friendship.

He recalled the day he'd found her at the place where the pink lady slippers grew, just kneeling there and looking at them, not picking any of them. He'd stopped beside her and been pleased she had not moved to pick them, knowing that in the sight of them, the two, he and she, had found a joy and a beauty that was beyond possession.

He reached the ridgetop and turned down the grass-grown road that led down to the mailbox.

And he'd not been mistaken back there, he told himself, no matter how it may have seemed on second look. The butterfly's wing had been torn and crumpled

and drab from the lack of dust. It had been a crippled thing. And then it had been whole again and had flown away.

## VI

### WINSLOWE GRANT was on time.

As Enoch reached the mailbox, he sighted the dust raised by his old jalopy as it galloped along the ridge. It had been a dusty year, he thought. Little rain, and the crops had suffered. Although, to tell the truth, there were few crops on the ridge these days. There had been a time when comfortable small farms had existed all along the road, with the barns all red and the houses white. But now most of the farms had been abandoned. The houses and the barns were no longer red or white, but the gray and weathered wood, with all the paint peeled off and the ridgepoles sagging and the people gone.

It would not be long before Winslowe would arrive. Enoch settled down to wait. The mailman might be stopping at the Fisher box, just around the bend, although the Fishers, as a rule, got but little mail, mostly just the advertising sheets and other junk that was mailed out indiscriminately to the rural boxholders. Not that it mattered to the Fishers, for sometimes days

went by in which they did not pick up their mail. If it were not for Lucy, they perhaps would never get it, for it was mostly Lucy who thought to pick it up.

The Fishers were, for a fact, a truly shiftless outfit. Their house and all the buildings were ready to fall in upon themselves. They raised a grubby patch of corn that was drowned out, more often than not, by a flood rise of the river. They mowed some hay off a bottom meadow and they had a couple of raw-boned horses and a half dozen scrawny cows and a flock of chickens. They had an old clunk of a car, and a still hid out somewhere in the river bottoms, and they hunted and fished and trapped and were generally no account. Still, when one considered it, they were not bad neighbors. They tended to their business. They never bothered anyone except that periodically they went around, the whole tribe of them, distributing pamphlets and tracts through the neighborhood for some obscure fundamentalist sect that Ma Fisher had become a member of at a tent revival meeting down in Millville several years before.

Winslowe didn't stop at the Fisher box, but came boiling around the bend in a cloud of dust. He braked the panting machine to a halt and turned off the engine.

"Let her cool a while," he said.

The block crackled as it started giving up its heat.

"You made good time today," said Enoch.

"Lots of people didn't have any mail today," said Winslowe. "Just went sailing past their boxes."

He dipped into the pouch on the seat beside him and brought out a bundle tied together with a bit of string for Enoch — several daily papers and two journals.

"You get a lot of stuff," said Winslowe, "but hardly ever letters."

"There is no one left who would want to write to me."

"But," said Winslowe, "you got a letter this time."

**E**NOCH LOOKED, unable to conceal surprise. He could see the end of an envelope peeping from between the journals.

"A personal letter," said Winslowe, almost smacking his lips. "Not one of them advertising ones."

Enoch tucked the bundle underneath his arm, beside the rifle stock. "Probably won't amount to much," he said.

"Maybe not," said Winslowe, a sly glitter in his eyes.

He pulled a pipe and pouch from his pocket and slowly filled the pipe. The engine block continued its crackling and popping. The sun beat down out of a

cloudless sky. The vegetation alongside the road was coated with dust and an acrid smell rose from it.

"Hear that ginseng fellow is back again," said Winslowe, conversationally, but unable to keep out a conspiratorial tone. "Been gone for three, four days."

"Maybe off to sell his sang."

"You ask me," the mailman said, "he ain't hunting sang. He's hunting something else."

"Been at it for a right smart time," Enoch said.

"First of all," said Winslowe, "there's barely any market for the stuff and even if there was, there isn't any sang. Used to be a good market years ago. Chinese used it for medicine, I guess. But now there ain't no trade with China."

He leaned back in the seat, puffing serenely at his pipe.

"Funny goings-on," he said.

"I never saw the man," said Enoch.

"Sneaking through the woods," said Winslowe. "Digging up different kinds of plants. Got the idea myself he maybe is a sort of magic-man. Getting stuff to make up charms and such. Spends a lot of his time yarning with the Fisher tribe and drinking up their likker. You don't hear much of it these days, but I still hold with magic. Lots of things science can't explain. You

take that Fisher girl, the dummy. She can charm off warts."

"So I've heard," said Enoch.

And more than that, he thought. She can fix a butterfly.

Winslowe hunched forward in his seat.

"Almost forgot," he said. "I have something else for you."

He lifted a brown paper parcel from the floor and handed it to Enoch.

"This ain't mail," he said. "It's something that I made for you."

"Why, thank you," Enoch said, taking it from him.

"Go ahead," Winslowe said, "and open it up."

Enoch hesitated.

"Ah, hell," said Winslowe, "don't be bashful."

**E**NOCH TORE off the paper and there it was, a full-figure wood carving of himself. It was in a blond, honey-colored wood and some twelve inches tall. It shone like golden crystal in the sun. He was walking, with his rifle tucked beneath his arm and a wind was blowing, for he was leaning slightly into it and there were wind-flutter ripples on his jacket and his trousers.

Enoch gasped, then stood staring at it.

"Wins," he said, "that's the most beautiful piece of work I have ever seen."

"Did it," said the mailman,

"out of that piece of wood you gave me last winter. Best piece of whittling stuff I ever ran across. Hard, and without hardly any grain. No danger of splitting or nicking or shredding. When you make a cut, you make it where you want to and it stays the way you cut it. And it takes polish as you cut. Just rub it up a little is all you need to do."

"You don't know," said Enoch, "how much this means to me."

"Over the years," the mailman told him, "you've given me an awful lot of wood. Different kinds of wood no one's ever see before. All of it top-grade stuff and beautiful. It was time I was whittling something for you."

"And you have done a lot for me, lugger things from town."

"Enoch," Winslowe said, "I like you. I don't know what you are and I ain't about to ask, but, anyhow, I like you."

"I wish that I could tell you what I am," said Enoch.

"Well," said Winslowe, moving over to plant himself behind the wheel, "it don't matter much what any of us are, just so we get along with one another. If some of the nations would only take a lesson in how to get along from some small neighborhood like the world would be a whole lot better."

Enoch nodded gravely. "It doesn't look too good, does it?"

"It sure don't," said the mailman, starting up the car.

Enoch stood and watched the car move off, down the hill, building up its cloud of dust as it moved along.

Then he looked again at the wooden statuette of himself.

It was as if the wooden figure were walking on a hilltop, naked to the full force of the wind and bent against the gale.

Why? He wondered. What was it the mailman had seen in him to portray him as walking in the wind?

**H**E LAID the rifle and the mail upon a patch of dusty grass and carefully rewrapped the statuette in the piece of paper. He'd put it, he decided, on the mantelpiece. Or, perhaps better yet, on the coffee table that stood beside his favorite chair, in the corner by the desk. He wanted it, he admitted to himself, with some quiet embarrassment, where it was close at hand, where he could look at it or pick it up any time he wished. And he wondered at the deep, soul-satisfying pleasure that he got from the mailman's gift.

It was not because he was seldom given gifts. Scarcely a week went past that the alien travelers did not leave several with him. The house was cluttered, and

there was a wall of shelves down in the cavernous basement that were crammed with the stuff that had been given him. Perhaps it was, he told himself, because this was a gift from Earth. From one of his own kind.

He tucked the wrapped statuette beneath his arm. Picking up the rifle and the mail, he headed back for home, following the brush-grown trail that once had been the wagon road leading to the farm.

Grass had grown into thick turf between the ancient ruts, cut so deep into the clay by the iron tires of the old-time wagons that they still were no more than bare, impacted earth in which no plant as yet had gained a root-hold. But on each side the clumps of brush, creeping up the field from the forest's edge, grew man-high or better, so that now one moved down an aisle of green.

But at certain points, quite unexplainably — perhaps due to the character of the soil or to the mere vagaries of nature — the growth of brush had faltered. Here were vistas where one might look out from the ridge top across the river valley.

It was from one of these vantage points that Enoch caught the flash from a clump of trees at the edge of the old field, not too far from the spring where he had found Lucy.

He frowned as he saw the flash and stood quietly on the path, waiting for a repetition. But it did not come again.

It was one of the watchers, he knew, using a pair of binoculars to keep watch upon the station. The flash he had seen had been the reflection of the sun upon the glasses.

**W**HAT WERE they? Why should they be watching? It had been going on for some time now but, strangely, there had been nothing but the watching. There had been no interference. No one had attempted to approach him, though such approach could have been quite simple and quite natural. If they — whoever they might be — had wished to talk with him, a casual meeting could have been accomplished during any one of his morning walks.

But apparently as yet they did not wish to talk.

Then what did they want? Keep track of him, perhaps. In that regard, he thought, with a wry inner twinge of humor, they could have learned the pattern of his living in their first ten days of watching.

Or perhaps they might be waiting for a clue to what he might be doing. And in that direction there lay nothing but certain disappointment. They could watch

for a thousand years and gain no hint of it.

He turned from the vista and went plodding up the road, worried and puzzled by the watchers.

Perhaps, he thought, they had not attempted to contact him because of certain stories that might be told about him. Stories that no one, not even Winslowe, would pass on to him. What kind of stories, he wondered, might the neighborhood by now have been able to fabricate about him — fabulous folk tales to be told in bated breath about the chimney corner?

It might be well, he thought, that he did not know the stories, although it would seem almost a certainty that they would exist. And it also might be as well that the watchers had not attempted contact with him. For so long as there was no contact, he still was fairly safe. So long as there were no questions, there need not be any answers.

Are you really, they would ask, that same Enoch Wallace who marched off in 1861 to fight for Old Abe Lincoln? And there was one answer to that, there could only be one answer. Yes, he'd have to say, I am that same man.

And of all the questions they might ask him that would be the only one of all he could answer truthfully. For all the others there would be silence or evasion.

**T**HEY WOULD ask how come that he had not aged — how he could stay young when all mankind grew old. And he could not tell them that he did not age inside the station, that he only aged when he stepped out of it, that he aged an hour each day on his daily walks, that he might age an hour or so working in his garden, that he could age for fifteen minutes sitting on the steps to watch a lovely sunset. But that when he went back indoors again the aging process was completely canceled out.

He could not tell them that. And there was much else that he could not tell them. There might come a time, he knew, if they once contacted him, that he'd have to flee the questions and cut himself entirely from the world, remaining isolated within the station's walls.

Such a course would constitute no hardship physically, for he could live within the station without any inconvenience. He would want for nothing, for the aliens would supply everything he needed to remain alive and well. He had bought human food at times, having Winslowe purchase it and haul it out from town, but only because he felt a craving for the food of his own planet, in particular those simple foods of his childhood and his campaigning days.

But there was one thing the aliens could not provide — the human contacts he'd maintained through Winslowe and the mail. Once shut inside the station, he'd be cut off completely from the world he knew, for the newspapers and the magazines were his only contact. The operation of a radio in the station was made impossible by the interference set up by the installations.

He would not know what was happening in the world, would know no longer how the outside might be going. His chart would suffer from this and would become largely useless; although, he told himself, it was nearly useless now.

**B**UT ASIDE from all of this, he would miss this little outside world that he had grown to know so well, this little corner of the world encompassed by his walks. It was the walks, he thought, more than anything perhaps, that had kept him human and a citizen of Earth.

He wondered how important it might be that he remain, intellectually and emotionally, a citizen of Earth and a member of the human race. Perhaps there was no reason that he should. With the cosmopolitanism of the galaxy at his fingertips, it might even be provincial of him to be so intent upon continuing identi-



fication with the old home planet. He might be losing something by it.

But it was not in himself to turn his back on Earth. It was a place he loved too well — loving it even more, most likely, than those other humans who had not caught his glimpse of far and unguessed worlds. A man must belong to something, must have some loyalty and some identity. The galaxy was too big a place for any being to stand naked and alone.

A lark sailed out of a grassy plot and soared high into the sky and seeing it, he waited for the trill of liquid song to spray out of its throat and drip out of the blue. But there was no song, as there would have been in spring.

He plodded down the road and now, ahead of him, he saw the starkness of the station, reared upon its ridge.

Funny, he thought, that he should think of it as station rather than as home. But it had been a station longer than it had been a home.

There was about it a sort of ugly solidness, as if it might have planted itself upon that ridgeway and meant to stay forever.

It would stay, of course, if one wanted it, as long as one wanted it. For there was nothing that could touch it.

Even should he be forced some day to remain within its walls, the station still would stand against all of mankind's watching, all of mankind's prying. They could not chip it and they could not gouge it and they could not break it down. There was nothing they could do. All his watching, all his speculating, all his analyzing, would gain Man nothing beyond the knowledge that a highly unusual building existed on that ridgeway. For it could survive anything except a thermonuclear explosion — and maybe even that.

He walked into the yard and turned around to look back toward the clump of trees from which the flash had come, but there was nothing now to indicate that anyone was there.

## VII

INSIDE THE station, the message machine was whistling plaintively.

Enoch hung up his gun, dropped the mail and statuette upon his desk and strode across the room to the whistling machine. He pushed the button and punched the lever and the whistling stopped.

Upon the message plate he read: NO 406,302 TO STATION 18327. WILL ARRIVE EARLY EVENING YOUR TIME. HAVE THE COFFEE HOT. ULYSSES.

Enoch grinned. Ulysses and his coffee! He was the only one of the aliens who had ever liked any of Earth's foods or drinks. There had been others who had tried them, but not more than once.

Funny about Ulysses, he thought. They had liked each other from the very first, from that afternoon of the thunderstorm when they had been sitting on the steps and the mask of human form had peeled off the alien's face.

It had been a grisly face, graceless and repulsive. The face of a cruel clown. Enoch wondered, even as he thought it, what had put that particular phrase into his head, for clowns were never cruel. But here was one that could be — the colored patchwork of

the face, the hard, tight set of jaw, the thin slash of the mouth.

Then he saw the eyes and they canceled all the rest. They were large, with softness and a light of understanding in them. They reached out to him, as another being might hold out its hands in friendship.

The rain had come hissing up the land to thrum across the machine-shed roof and then it was upon them, slanting sheets of rain that hammered angrily at the dust which lay across the yard, while chickens ran for cover.

Enoch sprang to his feet and grasped the other's arm, pulling him to the shelter of the porch.

They stood facing one another, and Ulysses had reached up and pulled the split and loosened mask away. It revealed a bullet head without a hair upon it — and the painted face. A face like a wild and rampaging Indian, painted for the warpath, except that here and there were touches of the clown, as if the entire painting job had been meant to point up the inconsistent grotesqueries of war. But even as he stared, Enoch knew it was not paint, but the natural coloration of this thing which had come from somewhere among the stars.

WHATEVER OTHER doubt there was, or whatever wonder, Enoch had no doubt at all

that this strange being was not of the Earth. For it was not human. It might be in human form, with a pair of arms and legs, with a head and face. But there was about it an essence of inhumanity, almost a negation of humanity.

In olden days, perhaps, it might have been a demon. But the days were past (although, in some areas of the country, not entirely past) when one believed in demons or in ghosts or in any of the other of that ghastly tribe which, in man's imagination, once had walked the Earth.

From the stars, he'd said. And perhaps he was.

Although it made no sense. It was nothing one ever had imagined even in the purest fantasy. There was nothing to grab hold of, nothing to hang on to. There was no yardstick for it and there were no rules. It left a sort of blank spot in one's thinking that might fill in, with time, but now was no more than a tunnel of great wonder that went on and on forever.

"Take your time," the alien said. "I know it is not easy. And I do not know of a thing that I can do to make it easier. There is, after all, no way for me to prove I am from the stars."

"But you talk so well."

"In your tongue, you mean. It was not too difficult. If you only

knew of all the languages in the galaxy, you would realize how little difficult. Your language is not hard. It is a basic one. And there are many concepts with which it need not deal."

And, Enoch conceded, that could be true enough.

"If you wish," the alien said, "I can walk off somewhere for a day or two. Give you time to think. Then I could come back. You'd have thought it out by then."

Enoch smiled woodenly. The smile had an unnatural feel upon his face.

"That would give me time," he said, "to spread alarm throughout the countryside. There might be an ambush waiting for you."

The alien shook its head. "I am sure you wouldn't do it. I would take the chance if you want me to . . ."

"No," said Enoch, so calm he surprised himself. "No, when you have a thing to face, you face it. I learned that in the war."

"You'll do," the alien said. "You will do all right. I did not misjudge you and it makes me proud."

"Misjudge me?"

**“YOU DO** not think I just came walking in here cold? I know about you, Enoch. Almost as much as you know about yourself. Probably even more."

"You know my name?"

"Of course I do."

"Well, that is fine," said Enoch. "And what about your own?"

"I am seized with great embarrassment," the alien told him. "For I have no name."

Suddenly, for no reason, Enoch remembered that slouchy figure perching on the top rail of a fence, with a stick in one hand and a jack knife in the other, whittling placidly while the cannonballs whistled overhead and less than half a mile away the muskets snarled and crackled in the billowing powder smoke of the line.

"Then you need a name to call you by," he said, "and it shall be Ulysses."

"It is agreeable," said that strange one. "But might one ask why the name Ulysses?"

"Because it is the name of a great man of my race."

It was a crazy thing. For there was no resemblance between the two of them — that slouchy Union general whittling upon the fence and this other who stood upon the porch.

"I am glad you chose it," said this Ulysses, standing on the porch. "To my hearing it has a dignified and noble sound and, between the two of us, I shall be glad to bear it. And I shall call you Enoch, as friends of the first names. For the two of us shall

work together for many of your years."

It was beginning to come straight now. The thought was staggering. Perhaps it was as well that Enoch had been so dazed it had not come on him all at once.

"Perhaps," said Enoch, fighting back the realization that was crowding in on him, too fast, "I could offer you some victuals. I could cook up some coffee . . ."

"Coffee," said Ulysses, smacking his thin lips. "Do you have the coffee?"

"I'll make a big pot of it. I'll break in an egg so it will settle clear . . ."

"Delectable," Ulysses said. "Of all the drinks that I have drank on all the planets I have visited, the coffee is the best."

**THEY WENT** into the kitchen and Enoch stirred up the coals in the kitchen range and then put in new wood. He took the coffee pot over to the sink and laded it in some water from the water pail and put it on to boil. He went into the pantry to get some eggs and down into the cellar to bring up the ham.

Ulysses sat stiffly in a kitchen chair and watched him as he worked.

"You eat ham and eggs?" asked Enoch.

"I eat anything," Ulysses said. "My race is most adaptable. That

is the reason I was sent to this planet as a — what do you call it? A looker-out, perhaps."

"A scout," suggested Enoch.

"That is it, a scout."

He was an easy thing to talk with, Enoch told himself — almost like another person. Although, God knows, he looked little like a person. He looked, instead, like some outrageous caricature.

"You have lived here, in this house," Ulysses said, "for a long, long time. You feel affection for it."

"It has been my home since the day that I was born. I was gone from it for almost four years, but it was always home."

Ulysses told him, "I'll be glad to be getting home again myself. I've been away too long. On a mission such as this one, it always is too long."

Enoch put down the knife he had been using to cut a slice of ham and sat down heavily in a chair. He stared at Ulysses, across the table from him.

"You?" he asked. "You are going home?"

"Why, of course," Ulysses told him. "My job is nearly done. I have a home. Did you think I hadn't?"

"I don't know," said Enoch, weakly. "I had never thought of it."

And that was it, he knew. It

had not occurred to him to connect a being such as this with a thing like home. For it was only human beings that had a place called home.

"Some day," Ulysses said, "I shall tell you about my home. Some day you may even visit me."

"Out among the stars," said Enoch.

"It seems strange to you now," Ulysses said. "It will take a while to get used to the idea. But as you come to know the whole kit and kaboodle of us you will understand. I hope you like us. We are not bad people, really — not any of the many different kinds of us."

THE STARS, Enoch told himself, were out there in the loneliness of space. How far they were he could not even guess, nor what they were, nor why. Another world, he thought. No, that was wrong; many other worlds. There were people there. Perhaps many other people; a different kind of people, probably, for every different star. And one of them sat here in this very kitchen, waiting for the coffee pot to boil and the ham and eggs to fry.

"But why?" he asked. "But why?"

Ulysses said, "Because we are a traveling people. We need a

travel station here. We want to turn this house into a station and you to keep the station."

"This house?"

"We could not build a station, for then we'd have people asking who was building it and what it might be for. So we are forced to use an existing structure and change it for our needs. But the inside only. We leave the outside as it is, in appearance. For there must be no questions asked."

"But traveling . . ."

"From star to star," Ulysses said. "Quicker than the thought of it. Faster than a wink. There is what you would call machinery. But it is not machinery — not the same as the machinery you think of."

"You must excuse me," Enoch said, confused. "It seems so impossible."

"You remember when the railroad came to Millville?"

"Yes, I can remember that. I was just a kid."

"Then think of it this way. This is just another railroad. The Earth is just another town and this house will be the station for this new and different railroad. The only difference is that no one on Earth but you will know the railroad's here. For it will be no more than a resting and a switching point. No one on the Earth can buy a ticket to travel on the railroad."

Put that way, of course, it had a simple sound. But Enoch knew it was very far from simple.

"Railroad cars in space?" he asked.

"Not railroad cars," Ulysses told him. "It is something else. I do not know how to begin to tell you."

"Perhaps you should pick someone else. Someone who would understand."

"There is no one on this planet who could understand. We'll do with you as well as anyone."

"But . . ."

"What is it, Enoch?"

"Nothing," Enoch said.

For he remembered now how he had been sitting on the steps thinking how he was alone and about a new beginning, knowing that he could not escape a new beginning, that he must start from scratch and build his life anew.

And here, suddenly, was that new beginning — more wondrous and fearsome than anything he could have dreamed.

## VIII

ENOCH FILED the message and sent his confirmation: NO. 406302 RECEIVED. COFFEE ON THE FIRE. ENOCH.

Clearing the machine, he walked over to the No. 3 liquid tank he'd prepared before he left. He checked the temperature and

the level of the solution and made certain once again that the tank was securely positioned in relation to the materializer.

From there he went to the other materializer, the official and emergency materializer, over in the corner, and checked it over closely. It was all right, as usual. It always was all right, but before each of Ulysses' visits he never failed to check it. There was nothing he could have done about it had there been something wrong, other than send an urgent message to Galactic Center. In which case someone would have come in on the regular materializer and put it into shape.

For the official and emergency materializer was exactly what its name implied. It was used only for official visits by personnel of Galactic Center, or for possible emergencies. Its operation was entirely outside the operation of the local station.

Ulysses, as an inspector for this and several other stations, could have used the official materializer at any time he wished without prior notice. But in all the years that he had been coming to the station he had never failed, Enoch remembered with a touch of pride, to message he was coming. Enoch knew that it was a courtesy which all the other stations on the great galactic network might not be accorded.

Tonight, he thought, he probably should tell Ulysses about the watch that had been put upon the station. Perhaps he should have told him earlier. But he had been reluctant to admit that the human race might prove to be a problem to the galactic installation.

It was a hopeless thing, he thought, this obsession of his to present the people of the Earth as good and reasonable. For in many ways they were neither. Perhaps it was because they had not as yet entirely grown up. They were smart and quick, and at times compassionate and even understanding, but they failed lamentably on many other counts.

But if they had the chance, Enoch told himself — if they ever got a break, if they only could be told what was out in space — then they'd get a grip upon themselves and they would measure up. And then, in the course of time, they would be admitted into the great confraternity of the people of the stars.

Once admitted, they would prove their worth and pull their weight. For they were still a young race and full of energy — at times maybe too much energy.

Enoch shook his head and went across the room to sit down at his desk. Drawing the bundle of mail in front of him, he slid it

out of the string which Winslowe had used to tie it all together.

There were the daily papers, a news weekly, two journals — *Nature* and *Science* — and the letter.

**H**E PUSHED the papers and journals to one side and picked up the letter. It was an airmail sheet, postmarked London. The return address bore a name that was unfamiliar to him. He puzzled as to why an unknown person should be writing him from London. Although anyone who wrote him, from London or indeed from anywhere, would be an unknown person. He knew no one in the world outside this tiny community.

He slit the air sheet open and spread it out on the desk in front of him, pulling the desk lamp close so the light would fall upon the writing.

*Dear sir, he read, I would suspect I am unknown to you. I am one of the editors of the British journal, Nature, to which you have been a subscriber for these many years. I do not use the journal's letterhead because this letter is personal and unofficial — and perhaps not even in the best of taste.*

*You are, it may interest you to know, our eldest subscriber. We have had you on our mailing lists for more than eighty years.*

*While I am aware that it is no concern of mine, I have wondered if you, yourself, have subscribed to our publication for this length of time, or if it might be possible that your father or someone close to you may have been the original subscriber and you simply have allowed the subscription to continue in his name.*

*My interest undoubtedly constitutes an unwarranted and inexcusable curiosity and if you, sir, choose to ignore the query it is entirely within your rights and proper that you do so. But if you should not mind replying, an answer would be appreciated.*

*I can only say in my own defense that I have been associated for so long with our publication that I feel a certain sense of pride that someone has found it worth the having for more than eighty years, I doubt that many publications can boast such long time interest on the part of any man.*

*May I assure you, sir, of my utmost respect.*

*Sincerely yours.*

And then the signature.

**E**NOCH SHOVED the letter from him.

There it was again, he told himself. Here was another watcher, although a discreet and most polite one, unlikely to cause trouble.

But someone else had taken

notice, had felt a twinge of wonder at the same man subscribing to a magazine for more than eighty years.

As the years went on, there would be more and more.

It was not only the watchers encamped outside the station with whom he must concern himself, but those potential others. A man could be as self-effacing as he could manage and still he could not hide. Soon or late, the world would catch up with him and would come crowding around his door, agog to know why he might be hiding.

It was useless to hope for much further time. The world was closing in.

Why can't they leave me alone, he thought. If he only could explain how the situation stood, they might leave him alone.

But he couldn't explain. And even if he could, there would be some of them who'd still come crowding in.

Across the room the materializer beeped for attention and Enoch swung around.

The Thuban had arrived. He was in the tank, a shadowy, globular blob of substance. Above him, riding sluggishly in the solution, was a cube of something.

Luggage, Enoch wondered. But the message had said there would be no luggage.

Even as he hurried across the

room, the clicking came to him. The Thuban was talking to him.

*Presentation to you*, said the clicking. *Deceased fibrous vegetation.*

Enoch peered at the cube floating in the liquid.

*Take him*, clicked the Thuban. *Bring him for you.*

Fumblingly Enoch clicked out his answer, using tapping fingers against the glass side of the tank: *I thank you, gracious one.* He wondered as he did it if he were using the proper form of address to this blob of matter. A man could get terribly tangled up on that particular point of etiquette. There were some of these beings that one addressed in flowery language (and even in those cases, the floweriness would vary) and others that one talked with in the simplest, bluntest, most forthright terms.

He reached into the tank and lifted out the cube. It was a block of heavy wood, black as ebony and so close-grained it looked very much like stone. He chuckled inwardly, thinking how, in listening to Winslowe, he had grown to be an expert in the judging of artistic wood.

He put the wood upon the floor and turned back to the tank.

*Would you mind*, clicked the Thuban, *revealing what you do with him? To us, very useless stuff.*

**E**NOCH HESITATED, searching desperately through his memory. What, he wondered, was the code for "carve?"

*Well?* the Thuban asked.

*You must pardon me, gracious one. I do not use this language often. I am not proficient.*

*Drop, please, the gracious one. I am a common being.*

*Shape it*, Enoch tapped. *Into another form. Are you a visual being? Then I show you one.*

*Not visual*, said the Thuban. *Many other things, not visual.*

It had been a globe when it had arrived and now it was beginning to flatten out.

*You, the Thuban clicked, are a biped being.*

*That is what I am.*

*Your planet, It is a solid planet?*

*Solid?* Enoch wondered. Oh, yes, solid as opposed to liquid.

*One quarter solid*, he tapped. *The rest of it is liquid.*

*Mine almost all liquid. Only little solid. Very restful world.*

*One thing I want to ask you*, Enoch tapped.

*Ask*, the creature said.

*You are a mathematician. All you folks, I mean.*

*Yes*, the creature said. *Excellent recreation. Occupies the mind.*

*You mean you do not use it?*

*Oh, yes, once use it. But no need for use any more. Got all we*

*need to use, very long ago. Recreation now.*

*I have heard of your system of numerical notation.*

*Very different, clicked the Thuban. Very better concept.*

*You can tell me of it?*

*You know notation system used by people of Polaris VII?*

*No, I don't*, tapped Enoch.

*Then no use to tell you of our own. Must know Polaris first.*

So that was that, thought Enoch. He might have known. There was so much knowledge in the galaxy and he knew so little of it, understood so little of the little that he knew.

There were men on Earth who could make sense of it. Men who would give anything short of their very lives to know the little that he knew, and could put it all to use.

Out among the stars lay a massive body of wisdom, some of it an extension of what mankind knew, some of it concerning matters which Man had not yet suspected, and used in ways and for purposes that Man has not as yet imagined. And never might imagine, if left on his own.

Another hundred years, thought Enoch. How much would he learn in another hundred years? In another thousand? Would he learn enough?

*I rest now*, said the Thuban. *Nice to talk with you.*



## IX

ENOCH TURNED from the tank and picked up the block of wood. A little puddle of liquid had drained off it and lay glistening on the floor.

He carried the block across the room to one of the windows and examined it. At one corner of it a bit of bark remained. It had been sawed; someone had cut it into a size that would fit the tank where the Thuban rested.

He recalled an article he had read in one of the daily papers just a day or two before in which a scientist had contended that no great intelligence ever could develop on a liquid world.

But that scientist was wrong, for the Thuban race had so developed. There were other liquid worlds which were members of the galactic confraternity. There were a lot of things that Man would have to unlearn, as well as learn, if he ever should become aware of the galactic culture.

The limitation of the speed of light, for one thing.

For if nothing moved faster than the speed of light, then the galactic transport system would be impossible.

But one should not censure Man, he reminded himself, for setting the speed of light as a basic limitation. Observations were all that Man — or anyone,



for that matter — could use at data upon which to base his premises. And human science had so far found nothing to suggest a faster speed than light.

But the impulse patterns which carried creatures from star to star were almost instantaneous, no matter what the distance.

It was hard to believe. Moments ago the creature in the tank had rested in another tank in another station. The materializer had built up a pattern of it — not only of its body, but of its very vital force, the thing that gave it life. Then the impulse pattern had moved across the gulfs of space almost instantaneously to the receiver of this station,

where the pattern had been used to duplicate the body and the mind and memory and the life of that creature now lying dead many light years distant. And in the tank the new body and the new mind and memory and life had taken almost instant form. An entirely new being; but exactly like the old one, so that the identity continued and the consciousness (the very thought no more than momentarily interrupted), so that to all intent and purpose the being was the same.

**THERE WERE** limitations to the impulse patterns, but they had nothing to do with speed. The impulses could cross the en-

tire galaxy with but little lag in time. But under certain conditions the patterns tended to break down. This was why there must be many stations — many thousands of them. Clouds of dust or gas or areas of high ionization seemed to disrupt the patterns. In the sectors of the galaxy where these conditions were encountered, the distance jumps between the stations were considerably cut down to keep the pattern true. There were areas that had to be detoured because of high concentrations of the distorting gas and dust.

Enoch wondered how many dead bodies of the creature that now rested in the tank had been left behind at other stations in the course of the journey it was making — as this body in a few hours' time would lie dead within this tank when the creature's pattern was sent out again, riding on the impulse waves.

A long trail of dead, left across the stars. Each to be destroyed by a wash of acid and flushed into deep-lying tanks, but with the creature itself going on and on until it reached its final destination, to carry out the purpose of its journey.

And those purposes, Enoch wondered — the many purposes of the many creatures who passed through the stations scattered wide in space? There had been

certain instances when, chatting with the travelers, they had told their purpose. But with most of them he never learned the purpose. Nor had he any right to learn it. For he was the keeper only.

Mine host, he thought. Although not every time, for there were many creatures that had no use for hosts. But the man, at any rate, who watched over the operation of the station and who kept it going, who made ready for the travelers and who sent them on their way again when that time should come. And who performed the little tasks and courtesies of which they might stand in need.

He looked at the block of wood and thought how pleased Winslowe would be with it. It was very seldom that one came upon wood as black or fine-grained as this.

What would Winslowe think, he wondered, if he could only know that the statuettes he carved were made of woods that had grown on unknown planets many light-years distant? Winslowe must have wondered many times where the wood came from. But he had never asked. And he knew as well, of course, that there was something very strange about this man who came out to the mail box every day to meet him. But he had never asked that, either.

That was what he meant by friendship.

**THIS WOOD** that he held in his hands was another evidence of friendship — the friendship of the stars for a very humble keeper of a remote and backwoods station stuck out in one of the spiral arms, far from the center of the galaxy.

The word had spread, apparently, through the years and throughout space, that this certain keeper was a collector of exotic woods. And so the woods came in. Not only from those races he thought of as his friends, but from total strangers, like the blob that now rested in the tank.

He put the wood down on a table top and went to the refrigerator. From it he took a slab of aged cheese that Winslowe had bought for him several days ago, and a small package of fruit that a traveler from Sirrah X had brought the day before.

"Analyzed," it had told him, "and you can eat it without hurt. It will play no trouble with your metabolism. You've had it before, perhaps? So you haven't. I am sorry. It is most delicious. Next time, you like it, I shall bring you more."

From the cupboard beside the refrigerator he took out a small, flat loaf of bread, part of the ration regularly provided him by

Galactic Central. Made of a cereal unlike any known on Earth, it had a nutty flavor with the hint of some alien spice.

He put the food on what he called the kitchen table, although there was no kitchen. Then he put the coffee maker on the stove and went back to his desk.

The letter still laid there, spread out. He folded it together and put it in a drawer.

He stripped the brown folders off the papers and put them in a pile. From the pile he selected *The New York Times* and moved to his favorite chair to read.

**NEW PEACE CONFERENCE AGREED UPON**, said the lead-off headline.

The crisis had been boiling for a month or more, the newest of a long series of crises which had kept the world on edge for years. The worst of it was that the most of them were manufactured crises. One side or the other was merely pushing for advantage in the relentless chess game of power politics which had been underway since the end of World War II.

The stories in *The Times* bearing on the conference had a rather desperate, almost fatalistic, ring, as if the writers of the stories, and perhaps the diplomats and all the rest involved, knew the conference would accomplish nothing — if, in fact, it

did not serve to make the crisis deeper.

*Observers in this capital, wrote on of The Times' Washington bureau staff, are not convinced the conference will serve, in this instance, as similar conferences sometimes have served in the past, either to delay a showdown on the issues or to advance the prospects for a settlement. There is scarcely concealed concern in many quarters that the conference will, instead, fan the flames of controversy higher without, by way of compensation, opening any avenues by which a compromise might seem possible. A conference is popularly supposed to provide a time and place for the sober weighing of the facts and points of argument. But there are few who see in the calling of this conference any indications that this may be the case.*

The coffee maker was going full blast now. Enoch threw the paper down and strode to the stove to snatch it off. From the cupboard he got a cup and went to the table with it.

But before he began to eat, he went back to the desk and, opening a drawer, got out his chart and spread it on the table. Once again he wondered just how valid it might be. In certain parts of it, at times, it seemed to make a certain sort of sense.

He had based it on the Mizar

theory of statistics and had been forced, because of the nature of his subject, to shift some of the factors, to substitute some values. He wondered now, for the thousandth time, if he had made an error somewhere. Had his shifting and substitution destroyed the validity of the system? And if so, how could he correct the errors to restore validity?

Here the factors were, he thought: the birth rate and the total population of the Earth, the death rate, the values of currencies, the spread of living costs, attendance of places of worship, medical advances, technological developments, industrial indices, the labor market, world trade trends — and many others, including some that at first glance might not seem too relevant: the auction price of art objects, vacation preferences and movements, the speed of transportation, the incidence of insanity.

The statistical method developed by the mathematicians of Mizar, he knew, would work anywhere, on anything, if applied correctly. But he had been forced to twist it in translating an alien planet's situation to fit the situation here on Earth. And in consequence of that twisting, did it still apply?

He shuddered as he looked at it. For if he'd made no mistake, if he'd handled everything cor-

rectly, if his translations had done no violence to the concept, then the Earth was headed straight for another major war.

**H**E LET go the corners of the chart. It rolled itself back into a cylinder.

He reached for one of the fruits the Sirrah being had brought him and bit into it. He rolled it on his tongue, savoring the delicacy of the taste. It was as good as that strange, bird-like being had guaranteed it would be.

There had been a time, he remembered, when he had held some hope that the chart based on the Mizar theory might show, if not a way to end all war, at least a way to keep the peace. But the chart had never given any hint of the road to peace. Inexorably, relentlessly, it had led the way to war.

How many other wars, he wondered, could the people of the Earth endure?

No man could say, of course. But it might be just one more. For the weapons that would be used in the coming conflict had not as yet been measured. There was no man who could come close to actually estimating the results these weapons would produce.

War had been bad enough when men faced one another with their weapons in their hands, but in any present war great payloads

of destruction would go hurtling through the skies to engulf whole cities — aimed not at military concentrations, but at total populations.

He reached out his hand for the chart again, then pulled it back. There was no further need of looking at it. He knew it all by heart. There was no hope in it: He might study it and puzzle over it until the crack of doom and it would not change a whit. There was no hope at all. The world was thundering once again, in a blind red haze of fury and of helplessness, down the road to war.

He went on with his eating and the fruit was even better than it had been at first bite. Next time, the being had said, I will bring you more. But it might be a long time before he came again, and he might never come. There were many of them who passed through only once, although there were a few who showed up every week or so — old, regular travelers who had become close friends.

And there had been, he recalled, that little group of Hazers who, years ago, had made arrangements for extra long stopovers at the station so they could sit around this very table and talk the hours away, arriving laden with hampers and with baskets of things to eat and drink,

as if it were a picnic they had stopped for.

But finally they had stopped their coming. It had been years since he'd seen any one of them. He regretted it, for they'd been the best of companions.

He drank an extra cup of coffee, sitting idly in the chair, thinking about those good old days when the band of Hazers came.

## X

**H**IS EARS caught the faint rustling and he glanced quickly up to see her sitting on the sofa, dressed in the demure hoop skirts of the 1860s.

"Mary!" he cried, surprised, rising to his feet.

She was smiling at him in her very special way and she was beautiful, he thought, as no other woman ever had been beautiful.

"Mary," he said, "it's so nice to have you here."

And now, leaning on the mantelpiece, dressed in Union blue, with his belted sabre and his full black mustache, was another of his friends.

"Hello, Enoch," David Ransome said. "I hope we don't intrude."

"Never," Enoch told him. "How can two friends intrude?"

He stood beside the table and the past was with him, the good and restful past, the rose-scented

and unhaunted past that had never left him.

Somewhere in the distance was the sound of fife and drum and the jangle of the battle harness as the boys marched off to war, with the colonel glorious in his full dress uniform upon the great black stallion, and the regimental flags snapping in the stiff June breeze.

He walked across the room and over to the sofa. He made a little bow to Mary.

"With your permission, ma'am," he said.

"Please do," she said. "If you should happen to be busy we would understand . . ."

"Not at all," he said. "I was hoping you would come."

He sat down on the sofa, not too close to her. Her hands were folded very primly in her lap. He wanted to reach out and take her hands in his and hold them for a moment, but he knew he couldn't.

For she wasn't really there.

**“I**T'S BEEN almost a week," said Mary, "since I've seen you. How is your work going, Enoch?"

He shook his head. "I still have all the problems. The watchers still are out there. And the chart says war."

David left the mantle and came across the room. He sat

down in a chair and arranged his sabre.

"War, the way they fight it these days," he declared, "would be a sorry business. Not the way we fought it, Enoch."

"No," said Enoch. "Not the way we fought it. A war would be bad enough, but there is something worse. If Earth fights another war, our people will be barred for many centuries from the fraternity of space."

"Maybe that's not so bad," said David. "We may not be ready to join the ones in space."

"Perhaps not," Enoch admitted. "I rather doubt we are. But we could be some day. And that day would be shoved far into the future if we fight another war. You have to make some pretense of being civilized to join those other races."

"Maybe," Mary said, "they might never know. About a war, I mean. They go no place but this station."

Enoch shook his head. "They would know. I think they're watching us. Anyhow, they would read the papers."

"The papers you subscribe to?"

"I save them for Ulysses. That pile over in the corner. He takes them back to Galactic Central every time he comes. He's very interested in Earth, you know, from the years he spent here. And from Galactic Central, once he's

read them, I have a hunch the papers travel to the corners of the galaxy."

"Can you imagine," David asked, "what the promotion departments of those newspapers might have to say about it if they only knew their depth of circulation?"

Enoch grinned at the thought.

"There's that paper down in Georgia," David said, "that covers Dixie like the dew. They'd have to think of something that goes with galaxy."

"Glove," said Mary, quickly. "Covers the galaxy like a glove. What do you think of that?"

"Excellent," said David.

**“P**oor Enoch," Mary said, contrite. "Here we make our jokes and Enoch has his problems."

"Not mine to solve, of course," Enoch told her. "I'm just worried by them. All I have to do is stay inside the station and there are no problems. Once you close the door here, the problems of the world are securely locked outside."

"But you can't do that."

"No, I can't," said Enoch.

"I think you may be right," said David, "in thinking that these other races may be watching us. With an eye, perhaps, to some day inviting the human race to join them. Otherwise, why

would they have wanted to set up a station here on Earth?"

"They're expanding the network all the time," said Enoch. "They needed a station in this solar system to carry out their extension into this spiral arm."

"Yes, that's true enough," said David, "but it need not have been the Earth. They could have built a station out on Mars and used an alien for a keeper and still have served their purpose."

"I've often thought of that," said Mary. "They wanted a station on the Earth and an Earthman as its keeper. There must be a reason for it."

"I had hoped there was," Enoch told her. "But I'm afraid they came too soon. It's too early for the human race. We aren't grown up. We still are juveniles."

"It's a shame," said Mary. "We'd have so much to learn. They know so much more than we. Their concept of religion, for example."

"I don't know," said Enoch, "whether it's actually a religion. It seems to have few of the trappings we associate with religion. And it is not based on faith. It doesn't have to be. It is based on knowledge. These people know, you see."

"But don't you think," asked David, "that the human race may sense this? They don't know it, but they sense it. And are reach-

ing out to touch it. They haven't got the knowledge, so they must do the best they can with faith. And that faith goes back a far way, perhaps deep into the prehistoric days."

"I suppose so," Enoch said. "But it actually wasn't the spiritual force I was thinking of. There are all the other things, the material things, the methods, the philosophies that the human race could use. Name almost any branch of science and there is something there for us — more than what we have."

But his mind went back to that strange business of the spiritual force and the even stranger machine which had been built eons ago, by means of which the galactic people were able to establish contact with the force. There was a name for that machine, but there was no word in the English language which closely approximated it.

Talisman was the closest. But Talisman was too crude a word — although that had been the word that Ulysses had used when, some years ago, they had talked of it.

**T**HERE WERE so many things, so many concepts, he thought, out in the galaxy which could not be adequately expressed in any tongue on Earth. The Talisman was more than a

talisman and the machine which had been given the name was more than a mere machine. Involved in it, as well as certain mechanical concepts, was a psychic concept, perhaps some sort of psychic energy that was unknown on Earth. That and a great deal more. He had read some of the literature on the spiritual force and on the Talisman and had realized, he remembered, in the reading of it, how far short he fell — how far short the human race must fall — in an understanding of it.

The Talisman could be operated only by certain beings with certain types of minds and something else besides (could it be, he wondered, with certain kinds of souls?) Sensitives was the word he had used in his mental translation of the term for these kinds of people. But once again he could not be sure if the word came close to fitting. The Talisman was placed in the custody of the most capable, or the most efficient, or the most devoted (whichever it might be) of the galactic sensitives, who carried it from star to star in a sort of eternal progression. And on each planet the people came to make personal and individual contact with the spiritual force through the intervention and the agency of the Talisman and its custodian.

He found that he was shivering at the thought of it — the pure ecstasy of reaching out and touching the spirituality that flooded through the galaxy and, undoubtedly, through the universe. The assurance would be there that life had a special place in the great scheme of existence — that one, no matter how small, how feeble, how insignificant, still did count for something in the vast sweep of space and time.

"What is the trouble, Enoch?" Mary asked.

"Nothing," he said.

David said, "You were talking about what we could find in the galaxy. There was, for one thing, that strange sort of math. You were telling us of it once — "

"The Arcturus math, you mean," said Enoch. "I know little more than when I told you of it. It is too involved. It is based on behavior symbolism."

There was some doubt, he told himself, that you could even call it math. It was something that the scientists of Earth, no doubt, could use to make possible the engineering of the social sciences as logically and as efficiently as the common brand of math had been used to build the gadgets of the Earth.

"And the biology of that race out in Andromeda," Mary said. "The ones who colonized all those crazy planets."

"Yes, I know. But Earth would have to mature a bit in its intellectual and emotional outlook before we'd venture to use it as the Andromedans did. Still, I suppose that it would have its applications."

**H**E SHUDDERED inwardly as he thought of how the Andromedans used it. And that, he knew, was proof that he still was a man of Earth, kin to all the bias and the prejudice and the shibboleths of the human mind. For what the Andromedans had done was only common sense. If you cannot colonize a planet in your present shape, why, then you change your shape. You make yourself into the sort of being that can live upon the planet and then you take it over in that alien shape into which you have changed yourself. If you need to be a worm, then you become a worm. Or an insect. Or a shellfish, or whatever it may take. And you change not your body only, but your mind as well, into the kind of mind that will be necessary to live upon that planet.

"There are all the drugs," said Mary, "and the medicines. The medical knowledge that could apply to Earth. There was that little package Galactic Central sent you."

"A packet of drugs," said

Enoch, "that could cure almost every ill on Earth. That, perhaps, hurts me most of all. To know they're up there in the cupboard, actually on this planet, where so many people need them."

"You could mail out samples," David said, "to medical associations or to some drug concern."

Enoch shook his head. "I thought of that, but I have the galaxy to consider. I have an obligation to Galactic Central. They have taken great precautions that the station not be known. I cannot wreck their plans. For when you think of it, Galactic Central and the work it's doing is more important than the Earth."

"Divided loyalties," said David, with slight mockery in his tone.

"That is it, exactly. There had been a time, many years ago, when I thought of writing papers for some of the scientific journals. Not the medical journals, naturally, for I know nothing about medicine. The drugs are there, of course, lying on the shelf, with directions for their use, but they are merely so many pills or powders or ointments, or whatever they may be. But there were other things I'd learned. Not too much about them, naturally, but at least some hints in some new directions. Enough that someone could pick them up and go on from there. Someone who might

know what to do with them."

"But, look here," David said, "that wouldn't have worked out. You have no technical nor research background, no educational record. You're not tied up with any school or college. The journals just don't publish you unless you can prove yourself."

**"I** REALIZE that, of course, That's why I never wrote the papers. I knew there was no use. You can't blame the journals. They must be responsible. Their pages aren't open to just anyone. And even if they had viewed the papers with enough respect to want to publish them, they would have had to find out who I was. And that would have led straight back to the station."

"Even so," said David, "there'd be little you actually could tell them. What I mean is that generally you haven't got enough to go on. So much of this galactic knowledge is off the beaten track."

"I know," said Enoch. "The mental engineering of Mankalinen III, for one thing. If the Earth could know of that, our people undoubtedly could find a clue to the treatment of the neurotic and the mentally disturbed. We could empty all the institutions and we could tear them down or use them for something else. There'd be no need of

them. But no one other than the people out on Mankalinen III could ever tell us of it. I only know they are noted for their mental engineering, but that is all I know. I haven't the faintest inkling of what it's all about. It's something that you'd have to get from the people out there."

"What you are really talking of," said Mary, "are all the nameless sciences — the ones that no human has ever thought about."

"Like us, perhaps," said David. "David!" Mary cried.

"There is no sense," said David, angrily, "in pretending we are people."

"But you are," said Enoch tensely. "You are people to me. You are the only people that I have. What is the matter, David?

"I think," said David, "that the time has come to say what we really are. We are illusion. We are created and called up. We exist only for one purpose, to come and talk with you, to fill in for the real people that you cannot have."

"Mary," Enoch cried, "you don't think that way, too! You can't think that way!"

He reached out his arms to her and then he let them drop — terrified at the realization of what he'd been about to do. It was the first time he'd ever tried to touch her.

It was the first time, in all the years, that he had forgotten.

"I am sorry, Mary. I should not have done that."

Her eyes were bright with tears.

"I wish you could," she said. "Oh, how I wish you could!"

"David," he said, not turning his head.

"David left," said Mary.

"He won't be back," said Enoch.

Mary shook her head.

"What is the matter, Mary? What is it all about? What have I done!"

"Nothing," Mary said, "except that you made us too much like people. So that we became more human, until we were entirely human. No longer puppets, no longer pretty dolls, but really actual people. I think David must resent it — not that he is people, but that being people, he is still a shadow. It did not matter when we were dolls or puppets, for we were not human then. We had no human feelings."

"Mary, please," he said. "Mary, please forgive me."

She leaned toward him and her face was lighted by deep tenderness. "There is nothing to forgive," she said. "Rather, I suppose, we should thank you for it. You created us out of a love of us and a need of us and it is won-

derful to know that you are loved and needed."

"But I don't create you any more," Enoch pleaded. "There was a time, long ago, I had to. But not any longer. Now you come to visit me of your own free will."

How many years, he wondered. It must be all of fifty. And Mary had been the first, and David had been second. Of all the others of them, they had been the first and were the closest and the dearest.

And before that, before he'd even tried, he'd spent other years in studying that nameless science stemming from the thaumaturgists of Alphard XXII.

There had been a day and a state of mind when it would have been black magic, but it was not black magic. Rather, it was the orderly manipulation of certain natural aspects of the universe as yet quite unsuspected by the human race. Perhaps aspects that Man never would discover. For there was not, at least at the present moment, the necessary orientation of the scientific mind.

"David felt," said Mary, "that we could not go on forever, playing out our little sedate visits. There had to be a time when we faced up to what we really are."

"And the rest of them?"

"I am sorry, Enoch. The rest of them as well."

"But you? How about you, Mary?"

"I don't know," she said. "It is different with me. I love you very much."

"And I . . ."

"No, that's not what I mean. Don't you understand? I'm in love with you."

HE SAT stricken, staring at her. There was a great roaring in the world, as if he were standing still and the world and time were rushing swiftly past him.

"If it only could have stayed," she said, "the way it was at first. Then we were glad of our existence. Our emotions were so shallow; we seemed to be so happy. Like little children, running in the sun. But then we all grew up. And I think I the most of all."

She smiled at him and tears were in her eyes.

"Don't take it so hard, Enoch. We can . . ."

"My dear," he said, "I've been in love with you since the first day that I saw you. I think, maybe, even before that."

He reached out a hand to her, then pulled it back, remembering.

"I did not know," she said. "I should not have told you. You could live with it until you knew I loved you, too."

He nodded, dumbly.

She bowed her head. "Dear God, we don't deserve this. We have done nothing to deserve it."

She raised her head and looked at him. "If I could only touch you."

"We can go on," he said, "as we have always done. You can come to see me any time you want. We can . . ."

She shook her head. "It wouldn't work," she said. "Neither of us could stand it."

He knew that she was right. He knew that it was done. For fifty years she and the others had been dropping in to visit. And they'd come no more. For the fairyland was shattered and the magic spell was broken. He'd be left alone — more alone than ever, more alone than before he'd ever known her.

She would not come again and he could never bring himself to call her up again, even if he could. And his shadow world and his shadow love, the only love he'd ever really had, would be gone forever.

"Good-by, my dear," he said.

But it was too late. She was already gone.

And from far off, it seemed, he heard the moaning whistle that said a message had come in.

—CLIFFORD D. SIMAK

TO BE CONCLUDED

HERE GATHER THE STARS

# THE COOL WAR

by ANDREW FETLER

Here's what happens when  
two Master Spies tangle  
... and stay that way!

"NOTHING, nothing to get upset about," Pashkov said soothingly, taking his friend's arm as they came out of the villa forty miles from Moscow. Pashkov looked like a roly-poly zoo attendant leading a tame bear. "Erase his memory, give him a new name and feed him more patriotism. Very simple."

Medvedev raised his hand threateningly. "Don't come howling to me if everybody guesses he is nothing but a robot."

Pashkov glanced back at the house. Since the publication of *Dentist Amigovitch*, this house had become known all over the world as Boris Knackenpast's villa. Now the house was guarded

by a company of soldiers to keep visitors out. From an open window Pashkov heard the clicking of a typewriter.

"It's when they're not like robots that everybody suspects them," he said, climbing into his flier. "Petchareff will send you word when to announce his 'death.'"

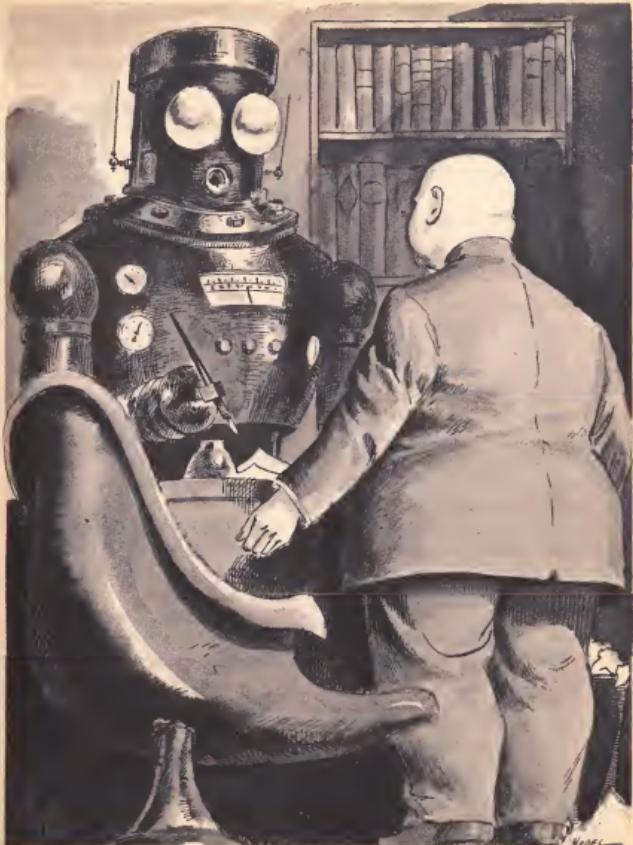
"A question, brother."

"No questions."

"Who smuggled the manuscript out of Russia?"

Pashkov frowned convincingly. "Comrade Petchareff has suspected even me."

He took off for Moscow, poking his flier up through the clouds and flying close to them, as was



his habit. Then he switched on the radio and got Petchareff's secretary. "Nadezhda?"

"I know what you're up to, Seven One Three," Nadezhda Brunhildova said. "Don't try to fool me, you confidence man. You are coming in?"

"In ten minutes. What have I done now?"

"You were supposed to make funeral arrangements for Knackenpast, so what are you doing in Stockholm?"

"Stockholm?"

"You're lying and I'll kill you. Don't you think I know about Anastina, that she-nurse in the Stockholm National Hospital?"

"Darling, why so cruel? Anastina is one of our contacts. Besides, she's cross-eyed and buck-toothed."

"Beast!" She switched him to Petchareff.

"What's been keeping you, Pashkov?"

"Consoling Medvedev. Am I supposed to be in Stockholm?"

"Never mind, get here at once. What size hospital gown do you wear?"

"Hospital gown?"

"Stockholm embassy says you're in the National Hospital now. In a hospital gown. I got through to Anastina. She says it's Colonel James again. He looks like you now."

Pashkov grunted.

"I'll never understand," said Petchareff, "why all top secret agents have to look like bankers. Anastina says Colonel James was operated on by a Monsieur Fanti. What do you know about him?"

"He's a theatrical surgeon."

"You're not playing one of your jokes, Pashkov?"

"Hardly."

"You'd better be in my office in ten minutes. What size hospital gown?"

"Short and fat," Pashkov said, and switched off.

Most countries wanted to break his neck, and his own Motherland did not always trust him. But he enjoyed his work — enjoyed it as much as his closest professional rival, Colonel James, U.S.A.

**PASHKOV** landed on the roof of Intelligence in the northeast corner of the Kremlin, hitched up his pants and rode down.

In his office, Petchareff removed the cigar from his mouth as Pashkov came in. "Medvedev get my orders?"

"He's preparing a new super-patriotic writer to replace Boris Knackenpast," Pashkov reported. "When you give the word, he will call *Izvestia* and tell them Boris is dead."

Petchareff glanced at his calendar. "We have two other state

funerals this week. You made it plain, I hope, we want no repetition of Knackenpast's peace nonsense?"

"No more Gandhi or Schweitzer influences. The new literature," Pashkov promised, raising a chubby finger, "will be a pearl necklace of government slogans."

Nadezhda buzzed the intercom. "The man from the Bolshoi Theater is here, Comrade."

"Send him in."

A small man hurried into the room. He had a narrow face and the mustache of a mouse and a mousy nose, but his eyes were big rabbit eyes. He bowed twice quickly, placed a package on the desk with trembling forepaws and bowed twice again.

Petchareff tore open the package. "You got the real thing? No bad imitation?"

"Exactly, exactly," the mouse piped. "No difference, Comrade." He held his paws as in prayer and his pointed mouth quivered.

Petchareff held up the hospital gown. On the back of the gown was printed in indelible ink:

stockholm national hospital  
courtesy of  
Coca-Cola

Petchareff tossed the gown to Pashkov. "This is what Colonel James is wearing," he said, dis-

missing the mouse, who bowed twice and scurried out.

"Try and split the allies," Pashkov muttered, reading the legend on the gown.

Petchareff blew cigar smoke in his face. "If Colonel James makes a monkey of you once more, you're through, Pashkov. You don't take your job seriously enough. You bungle this and I'll have you transferred to our Cultural Information Center in Chicago."

Pashkov winced.

"Now, you'll go to Stockholm and switch places with the American colonel and find out what they're up to. Zubov's kidnaping team is there already, at Hotel Reisen. Any questions?"

"I thought Zubov was a zoological warfare expert. What is he doing with a kidnaping team?"

"His team is more agile. On your way."

In the front office, Pashkov stopped to kiss Nadezhda Brunhildova goodby. "I may not return from this dangerous mission. Give me a tender kiss."

Nadezhda was a big girl with hefty arms, captain of her local broom brigade. "Monster!" She seized him by the collar. "Is Anastina dangerous?"

"Darling!"

"Bitter sweetness!" she howled, dropping him. "Go, love. Make me miserable."

PASHKOV spent an hour at Central Intelligence. Nothing unusual going on in Stockholm: an industrial exhibit, the Swedish Academy in session, a sociology seminar on prison reform, a forty-man trade mission from India.

An addendum to the Stockholm file listed two Cuban agents operating from Fralsningsarmen's Economy Lodgings. They were buying small arms and ammunition. He thought a moment, impressed the Cubans' address on his memory, and went to his flier.

He did not fly to Hotel Reisen at once. Zubov's kidnaping team could wait. Coming slowly over Stockholm he spotted the National Hospital and circled.

A line of ambulance fliers was parked on the ground in the ambulance court. On the hospital roof, he noticed, apart from private fliers, stood a flier that resembled his own.

He veered away, detoured around Riddarholmen, and five minutes later landed on the roof of Fralsningsarmen's Economy Lodgings — the Salvation Army flophouse.

"My Cuban friends," Pashkov inquired in fluent English at the desk on the top floor. "Are they in?"

The old desk clerk looked like a stork. "Yu, room six fifteen,"

he clacked. "Tree floors down, Aer yu Amerikan?"

"Brazil."

"Ah so? You sprikker goot Inglish laik me."

"Very kind of you."

He rode down three floors, found room 615, and stopped as he heard voices within.

"...dos, tres, cuatro, cinco, seis, siete. By seven o'clock tonight, okay, Gringo?"

"What do you expect for seven thousand bucks — service? Look, boys, I'm just a honest businessman. I can't get it for you today. Have a seegar, Pablo."

"Tfu!"

"All rightie, your cause is my cause. Maybe I can get it for you tonight. But you'll have to pay in advance. What do you say, Francisco?"

"I counted the money. It is waiting for you. You deliver, we pay."

"But how can I trust you? I like you boys, I know you like me, but business is business. I gotta give something to my jobber, don't I?"

"Gringo!"

At that moment Pashkov knocked on the door.

From within: "Shh! *Alguien llama a la puerta.*"

Pashkov knocked again and a scuffle ensued within, the crack of a chair on a skull, the dragging of a beefy body into a closet, and

the slam of the closet door.

"Yu?"

"*Buenas tardes,*" Pashkov said through the door. "*Asuntos muy importantes.*"

The door opened a crack and two dark eyes in a young bearded face peered out. "Eh?"

"*Gospodin Pashkov, para servir a usted.*"

The door opened enough to admit the poly-poly visitor into the room. The other Cuban, also bearded and wearing a fatigue cap, held a revolver.

"No gun-play, caballeros," Pashkov went on in Spanish. "We are in the Salvation Army charity house, not in a two-peso thriller. Besides, I deliver before I ask payment."

"Deliver what, senor?"

"We favor any disturbance close to the United States. May I sit down?"

Between two beds were stacked some dozen crates of explosives. A small table was littered with papers.

Sitting down at the table, Pashkov's elbow rested on an invoice, and moments later the invoice was tucked in his pocket.

"What kind of ammunition do you need, caballeros?"

The Cubans looked at each other. "Thirty-o-six caliber, two-twenty grain. How much can you deliver?"

"Two thousand rounds."

"Not much."

"Maybe three thousand. I'll toss in a box of hand grenades and a can of lysergic acid diethylamide."

"You have that? You have LSD-25?"

"I have that. When are you leaving Stockholm?"

Again the young beards exchanged looks. "Maybe we stay till tomorrow if you have more business. Three thousand rounds is not much. How much payment, senor?"

"Two thousand kronor," Pashkov said, taking an envelope on the table and addressing it to Nadezhda Brunhildova, Kremlin, Moscow. No return address.

"Do you trust us to send the money?"

"It is bad for you if I do not trust you," Pashkov said, smiling up at them.

"You can trust us. We shall send the money. Please take a cigar."

Pashkov took four Havanas from the box they held out to him, stuck three in his breast pocket, and lit one.

"You come again, senor. We make much business."

"Why not? Help retire Latin-American dictators to Siberia. More gold in Siberia than in Las Vegas."

"Hyi, hyi, that is funny. You come again."

On his way up to the roof, Pashkov studied the invoice he had lifted. It was from a manufacturer of sporting arms to Francisco Jesus Maria Gonzales, Salvation Army Economy Lodgings. He tucked the invoice into his inner pocket with a satisfied grunt, climbed into his fier and hopped over to Hotel Reisen, where Zubov's kidnaping team was waiting for him.

**C**OMRADE ZUBOV, the kidnaping expert, was pacing the roof of Hotel Reisen. As Pashkov eased down in his fier, Zubov's big front tooth flashed with delight. Pashkov felt like tossing him a bone.

"Everything in order, Gospodin Pashkov. Constant vigilance maintained at hospital by my two assistants. With your pardon, Comrade Petchareff urges all haste. Colonel James is due to leave the hospital tomorrow."

"Comrade Petchareff always urges haste. What else?"

Zubov's big tooth settled respectfully over his lower lip. His small eyes were so closely set that he looked cockeyed when he focused them on his superior.

"With your pardon, I shall conduct you to our suite. Plans for kidnaping of Colonel James all ready."

"Here's a cigar for you."

"Gratefully accepted. Reduced

unavoidable fatalities to six." Zubov counted on his long hard fingers. "Two watchmen, three nurses, one doctor."

In the hotel corridor, Zubov looked before and after, his eyes crossed suspiciously, and peered around corners. They got to their suite without incident, and Pashkov gave him another cigar.

"Gratefully accepted. Here is a map of hospital and grounds. Here is a map of twenty-third floor. Here is a map of Colonel James' room. Here is hospital routine between midnight and dawn. With your pardon —"

Pashkov picked up the phone, dialed the Soviet embassy, and got the chargé d'affaires. "How is your underdeveloped countries fund?" he asked.

"Always depleted, always replenished."

"I don't want any Russian brands."

"Nothing but foreign," the chargé buzzed. "We got almost everything now through an American surplus outlet in Hamburg. Nationals get caught with American goods, Americans get blamed. Wonderful confusion. What do you need?"

"Thirty-o-six two-twenty, three thousand — if you have it."

"Most popular. What else?"

"Pineapples — one crate."

"Only confiscated German potatoes. Will that do?"

"Fine. And a small can of sentimental caviar."

"Too risky."

"It's all right. It will fall to local authorities by tomorrow."

Pashkov put down the receiver. Give the Cubans enough to expect more — make sure they stay in town.

**Z**UBOV was cross-checking his kidnaping plans. He said, "With your pardon, do we take Colonel James alive or dead-or-alive?"

"Alive."

Zubov pulled a long face. "Dead-or-alive would be easier, Gospodin Pashkov. Fast, clean job."

Pashkov squinted at Zubov's crossed eyes. "Have you had your eyes examined lately?"

"No need," Zubov assured him with a smile. "I see more than most people."

Pashkov held up his remaining cigar. "How many cigars in my hand?"

"Two."

At that moment the door opened and Zubov's kidnaping team lumbered in. They were a couple of big apes dressed in blue canvas shoes, red trousers, yellow jackets, white silk scarves, sport caps and sun glasses.

"What are you doing here?" cried Zubov. "Why aren't you observing the hospital?"

"Dhh, you said to report . . . um . . . if something happened," the first ape said in a thick voice.

"Well?"

"Victim's room lights out," the ape said.

"My assistants," Zubov introduced them to Pashkov. "Line up, line up, lads. With your pardon, they are good lads. This is Petya, and this is Kolya. No, this is Kolya and this one is Petya."

"Twins?"

"Not exactly. Same genetic experiment. Good lads. Stand straight, Petya. Don't curl your feet like that, Kolya. I've told you before. Why didn't you shave your hands today?"

Kolya looked guiltily at his hands.

"They've made progress," Zubov assured Pashkov, pulling a small whip from his hip pocket. "Straight, lads, straight," he flicked the whip. "We have company."

"Are their costumes your own idea?"

"With your pardon, for purposes of concealment. What are your orders?"

Pashkov told them to pick up the boxes of ammunition at the embassy and deliver them to the Cubans, and then to commandeer a private automobile.

"We have autos at the embassy pool," Zubov suggested.

"I want a vehicle off the street."

Then report back here with your lads."

Petya gave Kolya a box on the ear.

"Boys, boys!" Zubov cracked the whip. "Out you go. A job for Gospodin Pashkov, lads. They don't get enough exercise," he grinned, backing out after them. "With your pardon, I'll thrash them later."

And they were gone. Pashkov turned to the hospital maps and studied them before taking a nap.

**S**HORTLY before dawn, Zubov's team returned, their mission accomplished.

"With your pardon, an excellent Mercedes," Zubov reported.

Pashkov had changed into the hospital gown with the Coca-Cola legend on the back. He glanced at his watch. It was four o'clock in the morning.

He tossed his bundle of clothing to the first ape. "Take my flier back to Moscow, Kolya lad. Give my clothes to Nadezhda Brunhildova, and tell Comrade Petchareff to expect Colonel James today."

Clutching the bundle, Kolya stuck his tongue out at Petya and bounded out of the room. They waited at the window until they saw Kolya take off in Pashkov's flier. Then they made their way down the service stairs to the al-

ley, Pashkov dressed only in the hospital gown; got into the stolen Mercedes and drove to the National Hospital, all three leaning forward.

In the ambulance court, Zubov and Petya moved quickly to a Red Cross flier. Pashkov dropped the invoice he had lifted from the Cubans on the front seat of the stolen car, and followed.

A watchman emerged from his hut, looked idly up at the rising ambulance, and shuffled back to his morning coffee.

As Petya brought the flier to a hovering stop against Colonel James' window, Pashkov bounded into the room; Zubov drew his gun and jumped in after.

Colonel James awoke, turned on the night lamp, and sat up in the bed, his eyes blinking.

Pashkov stood looking at Colonel James. The resemblance between them was remarkable. Zubov's eyes were crossed with astonishment.

"My dear Gospodin Pashkov!" Colonel James greeted him in Russian, yawning. "How kind of you to visit me. Do, sit down." Not only was his Russian good; his voice was a good imitation of Pashkov's voice.

"You're not really sick?" Pashkov asked, sitting down on the bed.

"Not physically. But imagine my psychological condition.

When I look in the mirror—" The colonel shuddered.

"I hope your sacrifice won't be permanent?" Pashkov said.

"That would be too much. How is my Russian? The truth, now."

"Excellent. Put up your gun, Zubov. Colonel James and I don't get to talk very often."

"And a pity we don't. Good manners accomplish more than an opera full of cloaks and daggers. Cigarette?"

"Gratefully accepted," Zubov said, slipping his gun into its holster with a flourish.

**Y**OUR treatment is over, then?" Pashkov asked. "You are ready for your assignment?"

"Ready."

"And that is?"

"Delicate, very delicate. I must report to the Palace this morning."

"Shall I kidnap him now?" Zubov interrupted, puffing conceitedly on his cigarette.

"Mind your language, Zubov. May I ask, Colonel — do you want me to think I am falling into a trap?"

"No, no, my friend. I am only doing my best not to show my surprise at seeing you again." The colonel got out of bed and sat down on Pashkov's other side.

"Zubov will make your trip

to Moscow comfortable. All right, Zubov."

Zubov focused his crossed eyes on Pashkov.

"Take him straight to Petchareff," Colonel James said to Zubov. "I'll report as soon as I know what these Swedes are up to."

Zubov seized Pashkov by the scruff of the neck and dragged him towards the window.

"Hold your claws, Zubov lad," Pashkov said. "You have got the wrong man, can't you see? That is Colonel James."

"Eh?"

"Use your eyes, blockhead. I am Pashkov."

Zubov did use his eyes. He looked from one to the other, and back. The more he focused, the more his eyes crossed. "Eh?"

Colonel James sat calmly on the bed. He said, "Carry him out."

Zubov lifted Pashkov off the floor, crashed with his weight against the wall, but held on, grinned and staggered with Pashkov in his arms to the window.

"You miserable idiot," Pashkov shouted. "You'll get a rest cure for this!"

Zubov dropped him, pulled his gun and backed off into a corner. "How can I tell you two apart just by looking!" he cried hysterically. "I'm not a learned man."

"One small but decisive proof,"

Pashkov said, unbuttoning his hospital gown. "I have a mole."

Zubov yanked the colonel up by an arm. "Send me to rest cures, will you?"

Colonel James sighed. "I guess we have to keep up appearances," he muttered, and climbed out the window into the hovering ambulance. Zubov leaped in after, and they were off.

THE suit of clothes hanging in the closet might have been Pashkov's own, identical with the clothes Kolya had taken to Moscow not an hour before. Even the underwear had facsimiles of the Order of Lenin sewn in.

Satisfied, he crawled into the bed and fell into a pleasant snooze.

He was awakened by the nurse, Anastina Bjorklund—alias Anastasia Semionovna Bezumnaya, formerly of the Stakhanovite Booster's Committee, Moscow Third Worker's District.

"Wonderful morning, Colonel James!"

Petchareff seldom let one agent know what another was doing.

She put a big breakfast tray on Pashkov's lap. "Cloudy, damp, and windy. London stock market caves in, race riots in South Africa, famine in India, earthquake in Japan, floods in the United States, general strike in France,

new crisis in Berlin. I ask you, what more can an idealist want?"

"Good morning, Miss Bjorklund."

The breakfast tray was crammed with a liter of orange juice, four boiled eggs, six slices of bacon, four pancakes, two pork chops, four slices of toast, a tumbler of vodka, a pot of coffee and two cigars.

"Ah, Colonel," Anastina said as Pashkov fell to, "why did you let them change your face? It does not become you at all."

"Part of my job. Don't you think I am more handsome now?"

Anastina laughed shrilly. "That bulbous nose handsome? What woman could fall in love with a nose like that?"

"It shows determination. I wish I had this nose permanently."

"You mustn't talk like that. But I'll ignore your nose if you tell me more about White Sands Proving Grounds, as you promised."

"With pleasure, with pleasure," he said, sinking his teeth into a pork chop, having seasoned the chop with the soft-boiled egg yolk. "But right now I'm in a hurry to get to the Palace. Give my shoes an extra shine, there's a good girl."

"Oh, you and your secrets!"  
An hour later, Pashkov landed

on the Palace roof in Colonel James' flier — an exact copy of his own flier. The Palace roof captain stared at him, then smiled nervously.

"They are waiting for you in the Gustavus room, Colonel."

"Colonel? Do I still look like Colonel James?"

"Oh, no, sir."

"Do I talk like Colonel James?"

"You've changed completely, sir. If I didn't know, I would swear you were the notorious Gospodin Pashkov."

"I am Gospodin Pashkov now, Captain. To everybody."

"Of course, sir. I'll ring down you are coming."

Pashkov glanced at his watch. Colonel James would be landing in Moscow about now and taken to Comrade Petchareff for questioning.

A manservant in velvet cutaways, patent leather shoes and white gloves, escorted Pashkov through rooms hungs with chandeliers, tapestries, paintings. Pashkov entered the last room and stopped as the door clicked shut behind him.

IN THE room were three men, all of whom he recognized: Professor Kristin of the Swedish Academy, a white-haired old man with a kind, intelligent face; the king, Gustavus IX, a thin old

man stroking his Vandyke, sitting under a portrait of Frederick the Great; and Monsieur Fanti, the make-up surgeon.

Pashkov bowed his head. "Your majesty. Gentlemen."

"Extraordinary!" Professor Kristin said.

Pashkov turned to the surgeon. "Monsieur, should my face have such a frivolous expression?"

M. Fanti raised his eyebrows, but did not answer.

"I thought," said Pashkov, "that Gospodin Pashkov's face has a more brutal look."

"Propaganda," said the artist. But he came closer and looked at Pashkov's face with sudden interest.

Professor Kristin said, "Colonel James, we presume you have studied the problem in detail. I'm afraid we have delayed announcing the Nobel prize for literature much too long. How soon can you bring Boris Knackenpast to Stockholm?"

So there it was: Boris Knackenpast a supreme success, as Pashkov had suspected. It would be amusing to tell robotist Medvedev about it.

"Delicate, very delicate," Pashkov said. "Everything depends on my not running into Gospodin Pashkov."

"We can't wait any longer," Professor Kristin said. "Fortunately, we have an ally in the

enemy camp. The robotist, Medvedev, is expecting you at Knackenpast's villa."

"Bad show," M. Fanti said suddenly. "No good. His left cheekbone is at least four centimeters too high."

The men looked at the surgeon, then at Pashkov.

M. Fanti fingered Pashkov's cheekbone. "How could I have made such a mistake! Just look at him. People laugh at such faces."

"How much time to correct the error then, Monsieur Fanti?" the king asked.

"A week at least. His skin needs a rest. I must rework the whole left side of his face — it's all lopsided."

"But we can't spare a week," Professor Kristin said.

"With your majesty's permission," Pashkov offered, "I am willing to go as I am. Indeed, my plans call for immediate departure."

"It is a good thing you do for us, Colonel James," Gustavus IX said, "and a courageous thing. Please accept our thanks."

Professor Kristin saw Pashkov to the door. "One suggestion, Colonel. Your r's are still too soft for a real Russian. Why do you Americans slur them like that? And I beg you, if you value your life, do not fail to watch your fricatives."

THE roof captain saluted as Pashkov stepped out of the lift. His fier was serviced and ready.

"What weather in Moscow, Captain?"

"Ceiling four thousand. We're having patrols half way out to sea. They are instructed to let you pass."

A small incident, the roof captain explained. A Swedish Red Cross fier was missing from the National Hospital. Two Cuban agents had been arrested and a cache of small arms and ammunition was found. But no trace of the ambulance.

"I suppose the Cubans deny stealing the ambulance?" Pashkov asked.

"They say they've been framed by a fat little Russian. But it's transparent, a clumsy job. Imagine, they left a stolen car in the ambulance court and in it an invoice for six cases of ammunition. It was traced to the Cubans in half an hour."

Pashkov climbed into his fier. "Well, it's fashionable to blame the Russians for everything." He waved his chubby hand, and took off. Flying over the Baltic, he set the controls on the Moscow beam.

Ten minutes west of Moscow he tuned the communicator in on Petchareff's office.

"Seven One Three here, Na-

dezhda. Tell Petchareff — no, let me talk to him."

"Seven One . . . but that's impossible! Gospodin Pashkov is in conference with Comrade Petchareff."

"Stupid!" Petchareff's voice sounded behind Nadezhda's, and the speaker clicked and went dead.

Pashkov dove into the clouds and brought his fier to a hovering stop.

Petchareff did not believe he was Pashkov. Colonel James, it was clear, was at that moment in Petchareff's office, impersonating Pashkov. And Zubov was probably getting a rest cure.

Pashkov crawled out of the cloud and skimmed northeast to Mir, Boris Knackenpast's villa.

"You came fast, sir," the lieutenant of guards welcomed him at Mir. "We did not expect you for another fifteen minutes."

Fifteen minutes. The colonel was not wasting time.

"Listen carefully, lieutenant" Pashkov described the American agent. "But his left cheekbone is lower than mine — about four centimeters. He may be armed, so be careful."

The lieutenant stared. "Shall we kill him?"

"No, no. Put him in a cage."

As Pashkov ran up the steps to the villa, the curtain in the vestibule window stirred. But

when he entered, the vestibule was empty.

He looked in the dining room, the music room, the library. Nobody. The house was strangely quiet. He came to the door of the study and listened. Not a sound. He went in and there, behind the large writing desk, sat Boris Knackenpast.

The robot was unscrewing screws imbedded in his neck.

"My God, sir," said Pashkov, "what are you doing?"

THE robot's eyes, large disks of glittering mirror, flashed as he looked up. "Ah, Colonel James," Boris said in a voice that seemed to come from a deep well. "Excuse the poor welcome, but I understand we have little time. You scared my valet; he thought you were Gospodin Pashkov."

The door burst open and Medvedev rushed in, the old valet at his heels. Medvedev stopped, gaped, then seized Pashkov's hand. "Colonel James! What an artist, that Monsieur Fanti. But quick, Boris, Pashkov is on his way."

Boris pulled off his head, and crawled out of the robot shell. Pashkov saw Boris as he really was, a tall human with a gaunt, ascetic face.

The sad thing about us, thought Pashkov, is that Medve-

dev could not trust even me. But then I could not trust Medvedev, either. Yes, that's the trouble with us.

"I hope you need no luggage, Mister Knackenpast," Pashkov said. "We must be off at once."

"Too late!" the old valet said from the window.

Colonel James had landed. But as he climbed down from his flier, the guards closed a circle about him.

"He'll keep," Pashkov said, hitching up his pants. "Let's be off, Mister Knackenpast. It won't take long for Petchareff to smell us out."

"Look!"

The guards fell back from the flier and snapped to attention. Chewing on his cigar furiously, out stepped Petchareff.

Zubov leaped out next, his big front tooth flashing. Then his two assistants, Petya and Kolya, tumbled out in their coats and hats. Last of all to emerge from the flier was Nadezhda Brunhildova.

"Pretend not to know me, will he?" she yelled at Colonel James, picking up a rock.

"Hold it, citizenress," Colonel James said.

"Citizenress, is it?" The rock flew over his head and felled Zubov.

"I warned you both, no kitchen squabbles while on duty," Petchareff roared. He snapped an or-

der to the lieutenants of guards, and the guards surrounded the house.

"No alarm, no alarm," Pashkov said, pulling Boris away from the window. "Mister Knackenpast, when you see your way clear to my flier, run for it. But get back into your robot costume."

"I can't operate the machine."

"I'll be right behind you. The rest of us will go out to Petchareff."

As they came out, Petchareff was reviving Zubov by slapping his face. The kidnaping expert lay stretched cold on the ground, and Nadezhda Brunhildova stood by, holding the rock and weeping.

Colonel James said, "There he is, the American spy."

Petchareff looked up as Pashkov was led forward by the guards. "Not bad," Petchareff said. "We could use Monsieur Fanti. What's his price?"

"Don't you know me, chief? Me, Pashkov."

"Curse me," Nadezhda said, staring at him. "Another Pashkov."

A terrible howl came from Zubov. Petya and Kolya, imitating Petchareff's efforts to revive their master, were battering Zubov's face with their slouched hats.

"Stand back!" Kolya screamed, smashing his hat into Zubov's

face. "He is trying to say something!"

"He's moving!" Petya kicked Zubov and looked up for approval, his hair standing up like spikes.

Petchareff slapped Kolya's face and crushed the glowing end of his cigar on Petya's forehead. The apes reeled back to a tree.

**PASHKOV** whispered to Colonel James.

"Capitalist hell and damnation, now I can't tell them apart myself," Petchareff said. "Zubov!"

"Hhng?"

"Which one's the real Pashkov?"

"Hhng?"

But Colonel James was running to the flier, throwing Nadezhda's rock at Petchareff and running.

"Grenade!" Pashkov yelled, and flung himself to the ground.

At the same moment Boris Knackenpast ran from the house to the flier, his robot gear clattering like Don Quixote's armor.

The guards scattered and dove for cover.

"Down, lads! Grenade!" Pashkov yelled.

The two apes took up the cry, "Grenade, grenade!" and flattened themselves behind the tree. Nadezhda and Medvedev

collided, digging in behind the valet.

Only Petchareff remained standing. "Stop the robot!"

Nobody moved.

Boris reached the flier, Colonel James pulled him in, the engine hummed, and they were off. A moment later the flier vanished in the clouds towards Stockholm.

Petchareff relit his cigar. "Tfui, tastes of monkey hair."

Medvedev shambled over. "Was the grenade a dud?"

"One of these days I'll catch you, Pashkov," Petchareff spat. "Your deviousness, that's one thing. It could be useful. But your levity —"

"Darling!" Nadezhda threw on Pashkov.

"Not in public," Pashkov said.

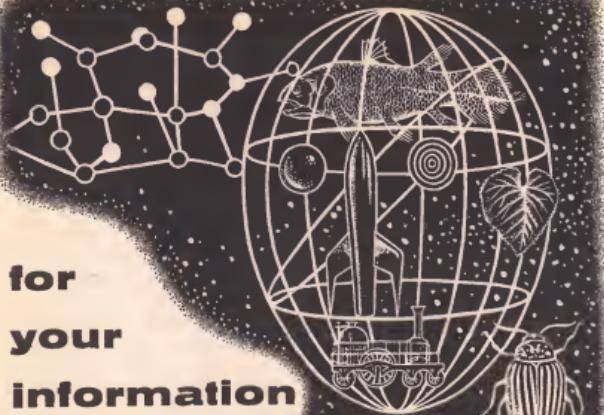
"Wait a minute," Petchareff said. "Nadezhda Brunhildova, how do you know he really is Pashkov? If he's actually Colonel James, I can shoot him summarily. He does look like Colonel James to me."

"But if you're mistaken?" Medvedev put in nervously.

"We all make mistakes," Petchareff said. "What would history be without mistakes?"

"I don't trust him either," Nadezhda said. "But I know my Pashkov. If he's not Pashkov, I shall let you know in the morning."

— ANDREW FELTER



## for your information

BY WILLY LEY

### SOUNDING ROCKETS AND GEOPROBES

THIS PIECE started out as a reply to a reader's question that read about as follows: "Reading the daily papers and news magazines about rocket work I have come across many unfamiliar names, such as Strong-arm, Journeyman, Javelin, Scout and so on. They seem to be solid-fuel rockets, but that is all I could find out about them. Were these rockets developed in secrecy?"

I started out by replying that

BALBAIS

GALAXY



The first sounding rocket, the WAC/Corporal.

the term "secrecy" was not quite right; "privacy" would be a better word. I had the privacy of a research laboratory in mind, where a group of men ponders a "mission" (a job to be performed) and tries to think of the most efficient and inexpensive way to perform it. To take an actual case, I continued, an instrument package weighing 45 pounds had to be carried into the lower portion of the inner Van

Allen belt, to an altitude of 600 miles. Of course a Thor rocket could have done it, or a Jupiter, not to mention the Atlas. But none of these big liquid-fuel rockets can conceivably be called inexpensive. And they all need ground facilities for firing which exist in only a few places.

To do it more cheaply — and at the same time to avoid the need for extensive ground facilities — it was decided to use a

rocket made up of existing hardware. An Honest John artillery rocket (minus its warhead, of course) was the first stage. The second stage consisted of a Nike-Ajax booster. The third stage was another Nike booster, and an Altair rocket the fourth stage. The whole was named Argo D-4 or Javelin. And it did its job. The instruments were carried 600 miles up on July 7, 1959.

Having come to that point in my reply I decided that other readers might have the same or a similar question in their minds and that a column on sounding rockets might be of all-around interest.

First let's explain what the term "sounding rocket" means. The word can be traced back to the French *ballon sonde*, which meant a small balloon carrying meteorological instruments. In

English this became "sounding balloon", and an instrument-carrying rocket logically became a "sounding rocket". They are fired more or less vertically. The deviation from the true vertical is introduced to make the burned-out rocket or rocket stages fall into the sea. Otherwise every empty stage would have to be supplied with a parachute for a soft landing, which would not only complicate the whole business but would also reduce the instrument load that can be carried. Parachutes are not devices of zero weight. In fact they are surprisingly heavy.

Originally the term sounding rockets referred to such rockets, which would take over from the balloons at 20 miles — the highest a balloon can go and still carry something — and extend the region of atmosphere research to 100 miles. But by now

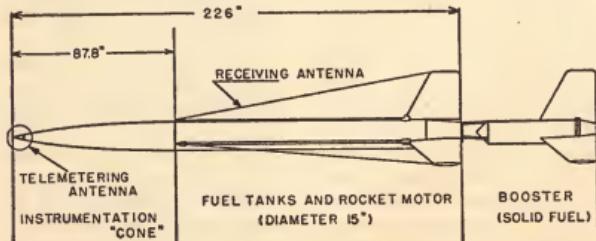
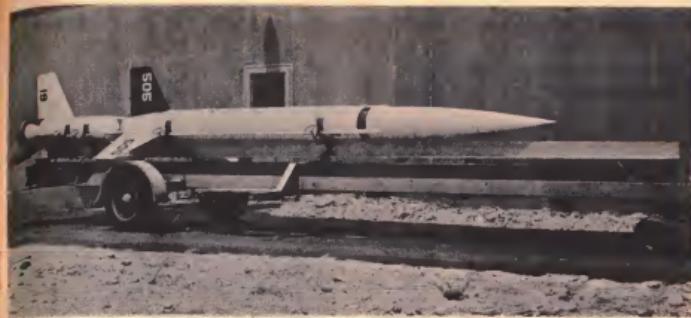


Diagram of the Aerobee.

GALAXY



Aerobee rocket with booster on transport cart. (Courtesy Aerojet-General.)

1,000 miles is not very difficult any more. For this reason an artificial distinction has been introduced. Up to 4,000 miles above sea level — one earth radius — instrument-carrying rockets are called sounding rockets. Beyond 4,000 miles they are called geoprosbes. Beyond, say, 100,000 miles they become lunar probes or planetary probes, depending on their destination.

The idea of the sounding rocket goes back to professor Robert H. Goddard who was the first (in 1919) to make detailed suggestions.

During the period from 1925 to 1935 various experimenters, in the United States as well as in Germany and Russia, occasionally stuck a barometric instrument into the nose cone of their

rockets. But that does not make them the first sounding rockets. In the first place, none of these experimental rockets ever carried a full set of the basic meteorological instruments, measuring atmospheric pressure, temperature and humidity. In the second place, no rocket fired prior to 1942 ever exceeded the altitude which could be investigated by balloons, too.

The first rocket which deserves the designation sounding rocket was the WAC Corporal, which was developed in California in 1944 and 1945, and test-fired from the White Sands Proving Ground in October, 1945. The overall length of the WAC Corporal was 16 feet, the diameter 12 inches, the diameter measured over the fins 48 inches

and the takeoff weight 665 pounds. The empty weight of the rocket was 275 pounds, propellant weight (nitric acid and aniline) 365 pounds and the payload weight 25 pounds. Started by a solid-fuel booster, the WAC Corporal climbed to 43.5 miles.

The career of the WAC Corporal was cut short by the fact that seventy German V-2 rockets became available very soon after the Corporal's first test flights. In addition to that, the WAC Corporal did have a shortcoming. The payload weight of 25 pounds was enough for most experiments in upper-atmosphere exploration. But the payload space was generally considered too small. Scientific instruments at that time often did not weigh much, but they did take up a great deal of space. Miniaturization was still in the future.

On the other hand, the V-2s, which were used because they were available, were generally speaking too big. They could carry a total of 2,310 pounds to an altitude of 100 miles. Of this total payload weight, 1,055 pounds were available for instruments. Nose cone and counterweight accounted for the other 1,255 pounds. But that much weight-carrying capacity was needed only in very rare cases—

for example in cosmic-ray research, where heavy lead shielding had to be carried.

Since the WAC Corporal was not quite what was wanted — and since the V-2s, one day, would all be gone — there was clearly a need for a new sounding rocket. One that was conceived and designed to be an instrument carrier before the first line was drawn on the drafting board. The Applied Physics Laboratory of Johns Hopkins University supplied the original design, the Navy's Bureau of Ordnance supplied the first funds, Douglas Aircraft Company and Aerojet, Inc. (now Aerojet-General) shared the work of building it. The rocket was the Aerobee, somewhat larger than the WAC Corporal (overall length about 19 feet with a diameter of 15 inches) but using the same fuels.

THE Aerobee was ready for its first test firing on November 24, 1947, but the first flight was not an unqualified success. The rocket yawed and the fuel flow had to be stopped by radio command. For this reason it reached only an altitude of 190,000 feet.

The second flight, made on March 5, 1948, came off as planned. The six-foot solid-fuel booster accelerated the rocket to about 1,000 feet per second and



Aerobee takeoff at the moment of booster burnout. (Courtesy Cooper Development Corp.)

then dropped off. At that instant the liquid-fuel motor took over and lifted the rocket (in 34 seconds of burning time) to an altitude of 95,000 feet. The velocity after the fuel was used up was

4,100 feet per second, and this resulted in a coasting flight to a peak altitude of 372,000 feet. The third Aerobee, fired on April 13, 1948, reached about the same altitude, while the fourth, fired on July 26, 1948, climbed to slightly over 70 miles.

A true sounding rocket had been created, with a vertical range of about 70 miles if the payload was 150 pounds. Heavier payloads could be carried if necessary, though of course this depressed the peak altitude. Naturally a payload weighing less than 150 pounds increased the peak altitude.

While the Aerobee did the atmosphere-sounding jobs that had to be done, a number of other developments began. One was simply an improved Aerobee. Its manufacturer, Aerojet, told the Air Force and the Navy that a better rocket was possible if more magnesium alloy and a new type of stainless steel were used in the construction. Both Air Force and Navy were interested, and the new version was designed and built. It was called the Aerobee-Hi. The diameter was the same as that of the Aerobee, but the rocket was longer, the Air Force version about 21 feet, the Navy version about 23½ feet. The altitude at which the liquid-fuel motor cut off was

pushed nearly 30,000 feet higher than that of the Aerobee, and the peak altitude, with a 120-pound payload, was calculated to be 165 miles.

Four years elapsed from the first proposal for the Aerobee-Hi to the first firing at White Sands on May 2, 1956. The first firing was disappointing, because only the booster ignited; the rocket fell back from an altitude of 10,000 feet and exploded on impact. The second and third firings also fell short of the goal, but on June 29, 1956, an Aerobee-Hi carried a 120-pound payload to 163 miles.

By the end of May, 1961, a total of 207 Aerobees had been fired, 112 Aerobee-His and one experimental model called Astrobee. They had been the workhorses of upper-atmosphere research for about a decade.

But there had been other developments too.

**T**o explain one of the problems which faced designers of sounding rockets we have to discuss the problem of air resistance to some extent.

Above an altitude of 100,000 feet air resistance becomes fairly negligible. Once a rocket has passed this critical altitude it can move as fast, and accelerate as sharply, as desired. But those

first 100,000 feet are not easy. An old rule of thumb has it that air resistance increases with about the square of the velocity. If you move twice as fast, you find four times as much air resistance; if you move three times as fast, you have nine times the air resistance to contend with. Hence a rocket which becomes very fast very soon will spend a great deal of its energy just fighting air resistance.

Well, this being the case, why don't we accelerate very gently to avoid excessive air resistance?

But if we did this we would be wasting an awful lot of fuel. Remember, please, that a rocket will use up fuel not accelerating or climbing at all, but just hovering at a given altitude. The problem is to find an acceleration which does not waste fuel by being too gentle, but which also does not waste fuel by being too violent and thus creating excessive air resistance. For the large liquid-fuel rockets with long burning times this problem could be solved. Being very heavy at the outset, they climb slowly at first, increasing not only their velocity but also their acceleration as they reach areas of successively lesser atmospheric densities.

For smaller rockets Professor Hermann Oberth had suggested



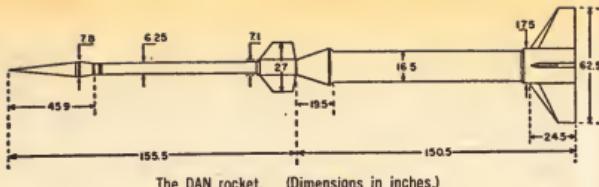
Production line of Aerobee rockets at Azusa, Calif.

a way out as early as 1923. He proposed to nestle the rocket in a launching ring. This was to be connected by long ropes to two small dirigibles which first climb as high as they can, then pull apart from each other to provide a space between them for the rocket to ascend. By that maneuver at least the very densest layers of the atmosphere — say the first four miles — could be avoided.

Oberth's idea, in a modified

form, was carried out by Dr. James A. Van Allen in 1951 and 1952. Since this was a combination of a rocket with a balloon the device was called a Rockoon. The balloon was a plastic balloon, the rocket the then new solid-fuel Deacon rocket.

By present-day standards the Deacon is a small rocket, but it was astonishing how high it could go by just being spared the trouble of penetrating the densest layers of the atmosphere.



The DAN rocket. (Dimensions in inches.)

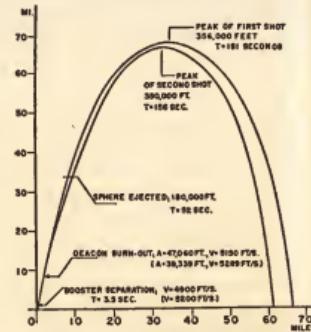
A Deacon fired from the ground reached about an altitude of 60,000 feet. But the same rocket lifted to 60,000 feet by means of a balloon and ignited at that altitude would go to 60 miles.

Of course nothing is completely without drawbacks. The rockoon method cannot be used on windy days. Laying out a large plastic balloon for inflation is a delicate and difficult job, and if the wind velocity is above a certain mark it simply cannot be done.

However, if a rockoon can be launched, no other method of getting instruments into the upper atmosphere can compete in inexpensiveness. Dr. Van Allen has pointed out that a payload of eight pounds can be flown to a peak altitude of 75 miles for a total cost of \$750 — which includes the price of the rocket, the balloon and the helium needed to inflate it. A payload of 35 pounds can be flown to 65 miles for \$1,300, and if obsolete military rockets can be used one can transport eight pounds to 45

miles for \$250. Small wonder that this method was used extensively during the International Geophysical Year; the United States alone made 86 rockoon flights.

In the rockoon technique the rocket is suspended in such a way that the balloon is missed by the ascending rocket. This does not constitute a saving, for the balloon is lost just the same. Another method would be to



Trajectories of the two DAN Firings.  
A = Altitude; V = Velocity; T = time elapsed since takeoff. Figures in parentheses refer to second shot.



The ASP. (Courtesy Cooper Development Corp.)

have the rocket suspended vertically and to shoot through the balloon. (The rocket can tear through the thin plastic without an appreciable loss in velocity.) This has been done only once, during Project Farside in 1957. Project Farside was supposed to reach an altitude of 4,000 miles, but it was one of those projects where all kinds of unforeseen accidents happen; the best shot produced by Project Farside, out of six attempts, probably went to 3,000 miles. It is necessary to say "probably" because nobody can be certain; the transmitter failed at 2,700 miles while the rocket was still rising.

Perhaps there would have been more, except for sputnik and the changes in policy that followed.

WHILE lifting the rocket by balloon was one method of circumventing high air resistance in the lower atmosphere, delayed ignition of the upper stages proved to be another workable method.

Solid-fuel rockets, which had been steadily improved since about 1950 and had also steadily grown larger, do have higher accelerations than large liquid-fuel rockets. While nothing much can be done about this for each single rocket, excessive air resistance can be avoided by letting some time pass between the burnout of the first stage and the ignition of the second stage.

The first sounding rockets to utilize ignition delay for reaching high altitudes were two rockets

called DAN (from Deacon And Nike). The characteristics of the Nike booster are listed in the table. The Deacon rocket was 107 inches long (without nose cone), and had a diameter of 6.25 inches and a gross weight at launching of 217.6 pounds. The burning time was only 2.8 seconds, the thrust around 6,000 pounds.

The two DAN rockets were alike, except that one carried 34 pounds of payload and the other one, the second, shot a payload of 39 pounds. The difference was due to a sphere which was ejected in flight. The purpose of the sphere ejection was that the falling of a sphere of known diameter and weight would give a clue to the density of the air through which it fell.

Round No. 1 was fired on April 8, 1955, Round No. 2 on June 24, 1955, both from Wallops Island. Burning time of the Nike booster is 3.5 seconds. Then the two stages separated, both climbing. The ignition of the Deacon rocket was supposed to be delayed for 15.5 seconds, but the actual delay was 17 seconds in the first shot and 12.8 seconds in the second shot. The results of the two shots are summarized in the diagram.

Only two DAN rockets were fired, then a new combination,

using the same method, was introduced. This was the Nike-Cajun, with a Cajun rocket as the upper stage. The Cajun is slightly larger and somewhat more powerful. The first Nike-Cajun (fired July 6, 1956) reached 425,000 feet. The shot labeled N-C 11, fired November 7, 1956, reached 576,000 feet. Several others went to around 550,000 feet.

It was proved possible that high altitudes — satellite altitudes, as we would say now — could be reached by combinations of relatively inexpensive rockets, provided the payload did not weigh too much. Thus began the era of the solid-fuel sounding rockets.

Not all of them were combinations of rockets. Some were single-stage devices. Two of these shall be mentioned, the ASP (Atmosphere Sounding Projectile) developed by Cooper Development Corporation in Monrovia, California, and the ARCAS, developed by Atlantic Research Corporation in Alexandria, Virginia. Like ASP, the name ARCAS is composed of the first letters of the words of a longer name — but two different explanations are being offered. One is All-purpose Rocket for the Collection of Atmospheric Soundings; the other is Atlantic Re-

| Name         | Length<br>(in.) | Diameter<br>(in.) | Burning<br>Time<br>(sec.) | Weight<br>(without<br>payload)<br>(lbs.) | Thrust<br>(sea level)<br>(lbs.) | Manufacturer    |
|--------------|-----------------|-------------------|---------------------------|--|---------------------------------|-----------------|
| Algol        | 358             | 40                | 36                        | 22,460                                   | 104,500                         | Aerojet-General |
| Altair       | 58              | 18                | 38                        | 514                                      | 3,060                           | Hercules        |
| Antares      | 115             | 30                | 37                        | 2,300                                    | 14,500                          | same            |
| Nike booster | 150             | 16                | 3.5                       | 1,170                                    | 50,000                          | same            |
| Castor       | 244             | 31                | 27                        | 8,870                                    | 55,000                          | Thiokol         |
| Recruit      | 107             | 9.5               | 1.5                       | 350                                      | 35,000                          | same            |
| Cajun I.     | 108             | 6.75              | 2.8                       | 172                                      | 8,100                           | same            |
| Lance        | 185             | 15.1              | ca 7                      | 1,682                                    | 38,800                          | Grand Central   |
| Meteor       | 57.4            | 18                | 37                        | 431                                      | 2,600                           | same            |
| Asp          | 107             | 6.5               | ca 5                      | 192                                      | 6,000                           | Cooper          |

search Corporation All-purpose Sounder.

Without deciding which interpretation is correct I'll proceed to a description of the rocket. It is a very slender rocket, only 4.5 inches in diameter but with an overall length of 96.3 inches, if equipped with the standard 26-inch instrumentation nose. If the payload weighs 12 pounds, the takeoff weight is 77 pounds.

In most solid-fuel rockets the propelling charge (it is called a "grain" even if weighs 900 pounds) has the shape of a cylinder, with center hole which is often star-shaped. Ignition takes place in that center hole so that

the grain burns from the inside out, lasting for only a few seconds but delivering a great deal of thrust. The "grain" of the ARCAS is solid and burns from its rear end forward; this kind has been called a "cigarette burner" since it burns like a cigarette. Of course, this method prolongs the burning time. The ARCAS burns for 30 seconds with a thrust of 336 pounds.

THE ARCAS has been used since 1959 for routine meteorological work, by Air Force units as well as by airlines like Pan American. It has also been used for high-altitude research

and for support operations in long-range ballistic-missile tests. By the end of November, 1962, more than 1,000 ARCAS rockets had been fired.

After the propellant grain has burned, a so-called "delay column" is ignited. This burns quietly for about 100 seconds, during which time the rocket coasts to its peak altitude, which lies between 200,000 and 280,000 feet, depending on the payload carried. Then, about 130 seconds after takeoff, the delay column ignites the separation charge. Payload is separated from the body of the rocket. The payload returns by parachute to be picked up while the rocket body simply falls to the ground. During the winter of 1962-63 our research station at McMurdo Sound in Antarctica (of course they had summer then) used boosted ARCAS rockets for high-altitude research. The rocket is the same, but it has a short solid-fuel booster which increases the peak altitude to 330,000 feet.

The other single-stage solid-fuel sounding rocket, the ASP, is not only an example of a successful development, but also one of Twentieth Century speed. The Navy's Bureau of Ships wanted such a rocket and sent the contract to Cooper Development Corporation on July 8, 1955.

"The rocket," a company spokesman reported later, "was designed, fabricated, modified, static-fired and flight-tested in less than six months after receipt of the contract. The first prototype rocket was launched successfully at the Naval Air Missile Test Center, Point Mugu, Calif., on December 27, 1955."

The ASP is slightly larger and heavier than the ARCAS (see table) and is of the short duration with high thrust type. There are three versions which differ from each other as follows:

|                               | ASP-I | ASP-II | ASP-III |
|-------------------------------|-------|--------|---------|
| Thrust, in pounds             | 5850  | 8680   | 9600    |
| Burning time, sec.            | 5.3   | 3.6    | 3.3     |
| Propellant weight, pounds     | 150   | 152    | 138     |
| Empty weight, of case, pounds | 40    | 40     | 40      |

When launched vertically the ASP will reach 198,000 feet with a 25-pound payload, and 169,000 feet with a 50-pound payload. Launched at an elevation of 4,000 feet (White Sands), the figures are 245,000 feet and 197,000 feet, respectively.

But the figures are really impressive if the launch takes place 75,000 feet up, say from a Skyhook balloon. Then the 25-pound payload will be carried to 635,000 feet and the 50-pound payload to 490,000 feet. It can be

seen at a glance that the ASP is a fine upper stage for a heavier booster.

And that brings me back to the combinations which caused the letter that caused this column, the rockets with names like Javelin, Journeyman and so forth. The makeup of the Javelin has already been explained. Others of the same kind are:

*Argo E-5, Jason:* 1st stage, Honest John; 2nd stage, Nike booster; 3rd stage, another Nike booster; 4th stage, a Recruit rocket; 5th stage, a Thiokol T-55 rocket.

*Argo D-8, Journeyman:* 1st, Thiokol Sergeant rocket with two Recruit rockets burning simultaneously; 2nd, Grand Central Lance rocket; 3rd, another Lance; 4th Altair.

*Trailblazer:* 1st, Honest John; 2nd, Nike booster; 3rd, Lance; 4th, Thiokol T-40; 5th, Thiokol T-55.

*Strongarm:* 1st, Honest John; 2nd, Nike booster; 3rd, another Nike booster; 4th, a Yardbird rocket; 5, scaled-down Sergeant rocket.

It should be mentioned that in some cases the stages do not all fire on the upward leg of the trajectory. Often the arrangement is that the top two stages do not fire until the rocket begins to re-enter the atmosphere. The pur-

pose is, of course, to test re-entry conditions at speeds which correspond to the re-entry of a missile after a 4,000 mile journey through space.

Finally, we have among these composite rockets NASA's Scout, where the first stage is an Algol, the second a Castor, the third an Antares and the fourth an Altair. As befits this collection of abducted star names, the Scout has satellite capability. Several satellites now orbiting the earth were put into orbit by Scout rockets. And the Scout is also the only one which could be a geoprobe.

—WILLY LEY

# FIGHT CANCER

AMERICAN  
CANCER SOCIETY

# END AS A HERO

By KEITH LAUMER

Illustrated by SCHELLING

*Granthan's mission was the most vital of the war. It would mean instant victory — but for whom?*

I

**I**N the dream I was swimming in a river of white fire and the dream went on and on. And then I was awake—and the fire was still there, fiercely burning at me.

I tried to move to get away from the flames, and then the real pain hit me. I tried to go back to sleep and the relative comfort of the river of fire, but it was no go. For better or worse, I was alive and conscious.

I opened my eyes and took a look around. I was on the floor next to an unpadded acceleration couch—the kind the Terrestrial Space Arm installs in seldom-

used lifeboats. There were three more couches, but no one in them. I tried to sit up. It wasn't easy but, by applying a lot more will-power than should be required of a sick man, I made it. I took a look at my left arm. Baked. The hand was only medium rare, but the forearm was black, with deep red showing at the bottom of the cracks where the crisped upper layers had burst . . .

There was a first-aid cabinet across the compartment from me. I tried my right leg, felt broken bone-ends grate with a sensation that transcended pain. I heaved with the other leg, scrawled with the charred arm. The crawl

to the cabinet dwarfed Hillary's trek up Everest, but I reached it after a couple of years, and found the microswitch on the floor that activated the thing, and then I was fading out again . . .

**I**CAME out of it clear-headed but weak. My right leg was numb, but reasonably comfortable, clamped tight in a walking brace. I put up a hand and felt a shaved skull, with sutures. It must have been a fracture. The left arm—well, it was still there, wrapped to the shoulder and held out stiffly by a power truss that would keep the scar tissue from pulling up and crippling me. The steady pressure as the truss contracted wasn't anything to do with a sense-tape on for replaying at leisure moments, but at least the cabinet hadn't amputated. I wasn't complaining.

As far as I knew, I was the first recorded survivor of contact with the Gool—if I survived.

I was still a long way from home, and I hadn't yet checked on the condition of the lifeboat. I glanced toward the entry port. It was dogged shut. I could see black marks where my burned hand had been at work.

I fumbled my way into a couch and tried to think. In my condition—with a broken leg and third-degree burns, plus a fractured skull—I shouldn't have

been able to fall out of bed, much less make the trip from *Belshazzar's* CCC to the boat; and how had I managed to dog that port shut? In an emergency a man was capable of great exertions. But running on a broken femur, handling heavy levers with charred fingers and thinking with a cracked head were overdoing it. Still, I was here—and it was time to get a call through to TSA headquarters.

I flipped the switch and gave the emergency call-letters Col. Ausar Kayle of Aerospace Intelligence had assigned to me a few weeks before. It was almost five minutes before the "acknowledge" came through from the Ganymede relay station, another ten minutes before Kayle's face swam into view. Even through the blur of the screen I could see the haggard look.

"Granthan!" he burst out. "Where are the others? What happened out there?" I turned him down to a mutter.

"Hold on," I said. "I'll tell you. Recorders going?" I didn't wait for an answer—not with a fifteen-minute transmission lag. I plowed on:

"*Belshazzar* was sabotaged. So was *Gilgamesh*—I think. I got out. I lost a little skin, but the aid cabinet has the case in hand. Tell the Med people the drinks are on me."

I finished talking and flopped back, waiting for Kayle's reply. On the screen, his flickering image gazed back impatiently, looking as hostile as a swing-shift ward nurse. It would be half an hour before I would get his reaction to my report. I dozed off—and awoke with a start. Kayle was talking.

"—your report. I won't mince words. They're wondering at your role in the disaster. How does it happen that you alone survived?"

"How the hell do I know?" I yelled—or croaked. But Kayle's voice was droning on:

"... you Psychodynamics people have been telling me the Gool may have some kind of long-range telehypnotic ability that might make it possible for them to subvert a loyal man without his knowledge. You've told me yourself that you blacked out during the attack—and came to on the lifeboat, with no recollection of how you got there.

"This is war, Granthan. War against a vicious enemy who strike without warning and without mercy. You were sent out to investigate the possibility of —what's that term you use? —hyper-cortical invasion. You know better than most the risk I'd be running if you were allowed to pass the patrol line.

"I'm sorry, Granthan. I can't

let you land on Earth. I can't accept the risk."

"What do I do now?" I stormed. "Go into orbit and eat pills and hope you think of something? I need a doctor!"

Presently Kayle replied. "Yes," he said. "You'll have to enter a parking orbit. Perhaps there will be developments soon which will make it possible to . . . ah . . . restudy the situation." He didn't meet my eye. I knew what he was thinking. He'd spare me the mental anguish of knowing what was coming. I couldn't really blame him; he was doing what he thought was the right thing. And I'd have to go along and pretend—right up until the warheads struck—that I didn't know I'd been condemned to death.

## II

I TRIED to gather my wits and think my way through the situation. I was alone and injured, aboard a lifeboat that would be the focus of a converging flight of missiles as soon as I approached within battery range of Earth. I had gotten clear of the Gool, but I wouldn't survive my next meeting with my own kind. They couldn't take the chance that I was acting under Gool orders.

I wasn't, of course. I was still the same Peter Granthan, psy-



chodynamicist, who had started out with Dayan's fleet six weeks earlier. The thoughts I was having weren't brilliant, but they were mine, all mine . . .

But how could I be sure of that?

Maybe there was something in Kayle's suspicion. If the Gool were as skillful as we thought, they would have left no overt indications of their tampering — not at a conscious level.

But this was where psychodynamics training came in. I had been reacting like any scared casualty, aching to get home and lick his wounds. But I wasn't just any casualty. I had been trained in the subtleties of the mind — and I had been prepared for just such an attack.

Now was the time to make use of that training. It had given me one resource. I could unlock the memories of my subconscious — and see again what had happened.

I lay back, cleared my mind of extraneous thoughts, and concentrated on the trigger word that would key an auto-hypnotic sequence . . .

Sense impressions faded. I was alone in the nebulous emptiness of a first-level trance. I keyed a second word, slipped below the misty surface into a dreamworld of vague phantasmagoric figures milling in their limbo of

sub-conceptualization. I penetrated deeper, broke through into the vividly hallucinatory third level, where images of mirror-bright immediacy clamored for attention. And deeper . . .

**T**HE immense orderly confusion of the basic memory level lay before me. Abstracted from it, aloof and observant, the monitoring personality-fraction scanned the pattern, searching for evidence of an alien intrusion.

And found it.

As the eye instantaneously detects a flicker of motion amid an infinity of static detail, so my inner eye perceived the subtle traces of the probing Gool mind, like a whispered touch deftly rearranging my buried motivations.

I focused selectively, tuned to the recorded gestalt.

*"It is a contact, Effulgent One!"*

*"Softly, now! Nurture the spark well. It but trembles at the threshold . . ."*

*"It is elusive, Master! It wriggles like a gorm-worm in the eating trough!"*

A part of my mind watched as the memory unrelaxed. I listened to the voices — yet not voices, merely the shape of concepts, indescribably intricate. I saw how the decoy pseudo-personality which I had concretized for the

purpose in a hundred training sessions had fought against the intruding stimuli — then yielded under the relentless thrust of the alien probe. I watched as the Gool operator took over the motor centers, caused me to crawl through the choking smoke of the devastated control compartment toward the escape hatch. Fire leaped up, blocking the way. I went on, felt ghostly flames whipping at me — and then the hatch was open and I pulled myself through, forcing the broken leg. My blackened hand fumbled at the locking wheel. Then the blast as the lifeboat leaped clear of the disintegrating dreadnought — and the world-ending impact as I fell.

At a level far below the conscious, the embattled pseudopersonality lashed out again — fighting the invader.

*"Almost it eluded me then, Effulgent Lord. Link with this lowly one!"*

*"Impossible! Do you forget all my teachings? Cling, though you expend the last filament of your life-force!"*

Free from all distraction, at a level where comprehension and retention are instantaneous and total, my monitoring basic personality fraction followed the skillful Gool mind as it engraved its commands deep in my subconscious. Then the touch with-

drew, erasing the scars of its passage, to leave me unaware of its tampering — at a conscious level.

Watching the Gool mind, I learned.

The insinuating probe — a concept regarding which psychodynamicists had theorized — was no more than a pattern in emptiness . . .

But a pattern which I could duplicate, now that I had seen what had been done to me.

Hesitantly, I felt for the immaterial fabric of the continuum, warping and manipulating it, copying the Gool probe. Like planes of paper-thin crystal, the polyfinite aspects of reality shifted into focus, aligning themselves.

Abruptly, a channel lay open. As easily as I would stretch out my hand to pluck a moth from a night-flower, I reached across the unimaginable void — and sensed a pit blacker than the bottom floor of hell, and a glistening dark shape.

There was a soundless shriek. *"Effulgence! It reached out — touched me!"*

**U**SING the technique I had grasped from the Gool itself, I struck, stifling the outcry, invaded the fetid blackness and grappled the obscene gelatinous immensity of the Gool spy as it spasmed in a frenzy of xenopho-

bia—a ton of liver writhing at the bottom of a dark well.

I clamped down control. The Gool mind folded in on itself, gibbering. Not pausing to rest, I followed up, probed along my channel of contact, tracing patterns, scanning the flaccid Gool mind . . .

I saw a world of yellow seas lapping at endless shores of mud. There was a fuming pit, where liquid sulphur bubbled up from some inner source, filling an immense natural basin. The Gool clustered at its rim, feeding, each monstrous shape heaving against its neighbors for a more favorable position.

I probed farther, saw the great cables of living nervous tissue that linked each eating organ with the brain-mass far underground. I traced the passages through which tendrils ran out to immense caverns where smaller creatures labored over strange devices. These, my host's memory told me, were the young of the Gool. Here they built the fleets that would transport the spawn to the new worlds the Prime Overlord had discovered, worlds where food was free for the taking. Not sulphur alone, but potassium, calcium, iron and all the metals — riches beyond belief in endless profusion. No longer would the Gool tribe cluster — those who remained of a

once-great race—at a single feeding trough. They would spread out across a galaxy — and beyond.

But not if I could help it.

The Gool had evolved a plan — but they'd had a stroke of bad luck.

In the past, they had managed to control a man here and there, among the fleets, far from home, but only at a superficial level. Enough, perhaps, to wreck a ship, but not the complete control needed to send a man back to Earth under Gool compulsion, to carry out complex sabotage.

Then they had found me, alone, a sole survivor, free from the clutter of the other mind-fields. It had been their misfortune to pick a psychodynamicist. Instead of gaining a patient slave, they had opened the fortress door to an unseen spy. Now that I was there, I would see what I could steal.

A timeless time passed. I wandered among patterns of white light and white sound, plumbed the deepest recesses of hidden Gool thoughts, fared along strange ways examining the shapes and colors of the concepts of an alien mind.

I paused at last, scanning a multi-ordinal structure of pattern within pattern; the diagrammed circuits of a strange machine.

I followed through its logic-se-

quence; and, like a bomb-burst, its meaning exploded in my mind.

From the vile nest deep under the dark surface of the Gool world in its lonely trans-Plutonian orbit, I had plucked the ultimate secret of their kind.

Matter across space.

“YOU’VE got to listen to me, Kayle,” I shouted. “I know you think I’m a Gool robot. But what I have is too big to let you blow it up without a fight. Matter transmission! You know what that can mean to us. The concept is too complex to try to describe in words. You’ll have to take my word for it. I can build it, though, using standard components, plus an infinite-area antenna and a moebius-wound coil — and a few other things . . .”

I harangued Kayle for a while, and then sweated out his answer. I was getting close now. If he couldn’t see the beauty of my proposal, my screens would start to register the radiation of warheads any time now.

Kayle came back — and his answer boiled down to “no.”

I tried to reason with him. I reminded him how I had readied myself for the trip with sessions on the encephaloscope, setting up the cross-networks of conditioned defensive responses, the shunt circuits to the decoy pseudo-per-

sonality, leaving my volitional ego free. I talked about subliminal hypnotics and the resilience quotient of the ego-complex.

I might have saved my breath.

“I don’t understand that psychodynamics jargon, Granthan,” he snapped. “It smacks of mysticism. But I understand what the Gool have done to you well enough. I’m sorry.”

I leaned back and chewed the inside of my lip and thought unkind thoughts about Colonel Asuar Kayle. Then I settled down to solve the problem at hand.

I keyed the chart file, flashed pages from the standard index on the reference screen, checking radar coverages, beacon ranges, monitor stations, controller fields. It looked as though a radar-negative boat the size of mine might possibly get through the defensive net with a daring pilot, and as a condemned spy, I could afford to be daring.

And I had a few ideas.

### III

THE shrilling of the proximity alarm blasted through the silence. For a wild moment I thought Kayle had beaten me to the punch; then I realized it was the routine DEW line patrol contact.

“Z four-oh-two, I am reading

your IFF. Decelerate at 1.8 gee preparatory to picking up approach orbit . . ."

The screen went on droning out instructions. I fed them into the autopilot, at the same time running over my approach plan. The scout was moving in closer. I licked dry lips. It was time to try.

I closed my eyes, reached out — as the Gool mind had reached out to me — and felt the touch of a Signals Officer's mind, forty thousand miles distant, aboard the patrol vessel. There was a brief flurry of struggle; then I dictated my instructions. The Signals Officer punched keys, spoke into his microphone:

"As you were, Z four-oh-two. Continue on present course. At Oh-nineteen seconds, pick up planetary for re-entry and let-down."

I blanked out the man's recollection of what had happened, caught his belated puzzlement as I broke contact. But I was clear of the DEW line now, rapidly approaching atmosphere.

"Z four-oh-two," the speaker crackled. "This is planetary control. I am picking you up on channel forty-three, for re-entry and let-down."

There was a long pause. Then: "Z four-oh-two, countermand DEW Line clearance! Repeat, clearance countermanded! Emer-

gency course change to standard hyperbolic code ninety-eight. Do not attempt re-entry. Repeat: do not attempt re-entry!"

It hadn't taken Kayle long to see that I'd gotten past the outer line of defense. A few more minutes' grace would have helped. I'd play it dumb, and hope for a little luck.

"Planetary, Z four-oh-two here. Say, I'm afraid I missed part of that, fellows. I'm a little banged up — I guess I switched frequencies on you. What was that after 'pick up channel forty-three' . . .?"

"Four-oh-two, sheer off there! You're not cleared for re-entry!"

"Hey, you birds are mixed up," I protested. "I'm cleared all the way. I checked in with DEW —"

It was time to disappear. I blanked off all transmission, hit the controls, following my evasive pattern. And again I reached out —

A radar man at a site in the Pacific, fifteen thousand miles away, rose from his chair, crossed the darkened room and threw a switch. The radar screens blanked off . . .

For an hour I rode the long orbit down, fending off attack after attack. Then I was clear, skimming the surface of the ocean a few miles southeast of Key West. The boat hit hard. I felt the floor rise up, over, buffeting me against the restraining harness.

I hauled at the release lever, felt a long moment of giddy disorientation as the escape capsule separated from the sinking life-boat deep under the surface. Then my escape capsule was bobbing on the water.

I would have to risk calling Kayle now — but by voluntarily giving my position away, I should convince him I was still on our side — and I was badly in need of a pick-up. I flipped the sending key.

"This is z four-oh-two," I said. "I have an urgent report for Colonel Kayle of Aerospace Intelligence."

Kayle's face appeared. "Don't fight it, Granthan," he croaked. "You penetrated the planetary defenses — God knows how. I —"

"Later," I snapped. "How about calling off your dogs now? And send somebody out here to pick me up, before I add seasickness to my other complaints."

"We have you pinpointed," Kayle cut in. "It's no use fighting it, Granthan."

I felt cold sweat pop out on my forehead. "You've got to listen, Kayle," I shouted. "I suppose you've got missiles on the way already. Call them back! I have information that can win the war —"

"I'm sorry, Granthan," Kayle said. "It's too late — even if I

could take the chance you were right."

A different face appeared on the screen.

"Mr. Granthan, I am General Titus. On behalf of your country, and in the name of the President — who has been apprised of this tragic situation — it is my privilege to inform you that you will be awarded the Congressional Medal of Honor — posthumously — for your heroic effort. Although you failed, and have in fact been forced, against your will, to carry out the schemes of the inhuman enemy, this in no way detracts from your gallant attempt. Mr. Granthan, I salute you."

The general's arm went up in a rigid gesture.

"Stow that, you pompous idiot!" I barked. "I'm no spy!"

Kayle was back, blanking out the startled face of the general.

"Goodbye, Granthan. Try to understand . . ."

I flipped the switch, sat gripping the couch, my stomach rising with each heave of the floating escape capsule. I had perhaps five minutes. The missiles would be from Canaveral.

I closed my eyes, forced myself to relax, reached out . . .

I sensed the distant shore, the hot buzz of human minds at work in the cities. I followed the coastline, found the Missile Base,

flicked through the cluster of minds.

"—missile on course; do right, baby. That's it, right in the slot."

I fingered my way through the man's mind and found the control centers. He turned stiffly from the plotting board, tottered to a panel to slam his hand against the destruct button.

Men fell on him, dragged him back. "—fool, why did you blow it?"

I dropped the contact, found another, who leaped to the panel, detonated the remainder of the flight of six missiles. Then I withdrew. I would have a few minutes' stay of execution now.

I was ten miles from shore. The capsule had its own power plant. I started it up, switched on the external viewer. I saw dark sea, the glint of star-light on the choppy surface, in the distance a glow on the horizon that would be Key West. I plugged the course into the pilot, then leaned back and felt outward with my mind for the next attacker.

#### IV

IT was dark in the trainyard. I moved along the tracks in a stumbling walk. Just a few more minutes, I was telling myself. *A few more minutes and you can lie down . . . rest . . .*

The shadowed bulk of a box car loomed up, its open door a blacker square. I leaned against the sill, breathing hard, then reached inside for a grip with my good hand.

Gravel scrunched nearby. The beam of a flashlight lanced out, slipped along the weathered car, caught me. There was a startled exclamation. I ducked back, closed my eyes, felt out for his mind. There was a confused murmur of thought, a random intrusion of impressions from the city all around. It was hard, too hard. I had to sleep —

I heard the snick of a revolver being cocked, and dropped flat as a gout of flame stabbed toward me, the imperative Bam! echoing between the cars. I caught the clear thought:

"God-awful looking, shaved head, arm stuck out; him all right—"

I reached out to his mind and struck at random. The light fell, went out, and I heard the unconscious body slam to the ground like a poled steer.

It was easy—if I could only stay awake.

I gritted my teeth, pulled myself into the car, crawled to a dark corner behind a crate and slumped down. I tried to evoke a personality fraction to set as a guard, a part of my mind to stay awake and warn me of danger.

It was too much trouble. I relaxed and let it all slide down into darkness.

THE car swayed, click-clack, click-clack. I opened my eyes, saw yellow sunlight in a bar across the litter on the floor. The power truss creaked, pulling at my arm. My broken leg was throbbing its indignation at the treatment it had received—walking brace and all — and the burned arm was yelling aloud for more of that nice dope that had been keeping it from realizing how bad it was. All things considered, I felt like a badly embalmed mummy—except that I was hungry. I had been a fool not to fill my pockets when I left the escape capsule in the shallows off Key Largo, but things had been happening too fast.

I had barely made it to the fishing boat, whose owner I had coerced into rendezvousing with me before shells started dropping around us. If the gunners on the cruiser ten miles away had had any luck, they would have finished me — and the hapless fisherman — right then. We rode out a couple of near misses, before I put the cruiser's gunnery crew off the air.

At a fishing camp on the beach, I found a car — with driver. He dropped me at the railyard, and drove off under the impression he

was in town for groceries. He'd never believe he'd seen me.

Now I'd had my sleep. I had to start getting ready for the next act of the farce.

I pressed the release on the power truss, gingerly unclamped it, then rigged a sling from a strip of shirt tail. I tied the arm to my side as inconspicuously as possible. I didn't disturb the bandages.

I needed new clothes — or at least different ones — and something to cover my shaved skull. I couldn't stay hidden forever. The yard cop had recognized me at a glance.

I lay back, waiting for the train to slow for a town. I wasn't unduly worried—at the moment. The watchman probably hadn't convinced anyone he'd actually seen me. Maybe he hadn't been too sure himself.

The click-clack slowed and the train shuddered to a stop. I crept to the door, peered through the crack. There were sunny fields, a few low buildings in the distance, the corner of a platform. I closed my eyes and let my awareness stretch out.

"—lousy job. What's the use? Little witch in the lunch room . . . up in the hills, squirrel hunting, bottle of whiskey . . ."

I settled into control gently, trying not to alarm the man. I saw through his eyes the dusty

box car, the rust on the tracks, the listless weeds growing among cinders, and the weathered boards of the platform. I turned him, and saw the dingy glass of the telegraph window, a sagging screen door with a chipped enameled cola sign.

I walked the man to the door, and through it. Behind a linoleum-topped counter, a coarse-skinned teen-age girl with heavy breasts and wet patches under her arms looked up without interest as the door banged.

My host went on to the counter, gestured toward the waxed-paper-wrapped sandwiches under a glass cover. "I'll take 'em all. And candy bars, and cigarettes. And give me a big glass of water."

"Better git out there and look after yer train," the girl said carelessly. "When'd you git so all-fired hungry all of a sudden?"

"Put it in a bag. Quick."

"Look who's getting bossy—"

My host rounded the counter, picked up a used paper bag, began stuffing food in it. The girl stared at him, then pushed him back. "You git back around that counter!"

She filled the bag, took a pencil from behind her ear.

"That'll be one eighty-five. Cash."

My host took two dog-eared bills from his shirt pocket, drop-

ped them on the counter and waited while the girl filled a glass. He picked it up and started out.

"Hey! Where you goin' with my glass?"

The trainman crossed the platform, headed for the boxcar. He slid the loose door back a few inches against the slack latch, pushed the bag inside, placed the glass of water beside it, then pulled off his grimy railroader's cap and pushed it through the opening. He turned. The girl watched from the platform. A rattle passed down the line and the train started up with a lurch. The man walked back toward the girl. I heard him say: "Friend o' mine in there — just passin' through."

I was discovering that it wasn't necessary to hold tight control over every move of a subject. Once given the impulse to act, he would rationalize his behavior, fill in the details — and never know that the original idea hadn't been his own.

I drank the water first, ate a sandwich, then lit a cigarette and lay back. So far so good. The crates in the car were marked "U. S. Naval Aerospace Station, Bayou Le Cochon". With any luck I'd reach New Orleans in another twelve hours. The first step of my plan included a raid on the Delta National Labs; but

that was tomorrow. That could wait.

IT was a little before dawn when I crawled out of the car at a siding in the swampy country a few miles out of New Orleans. I wasn't feeling good, but I had a stake in staying on my feet. I still had a few miles in me. I had my supplies—a few candy bars and some cigarettes—stuffed in the pockets of the tattered issue coverall. Otherwise, I was unencumbered. Unless you wanted to count the walking brace on my right leg and the sling binding my arm.

I picked my way across mushy ground to a pot-holed black-top road, started limping toward a few car lights visible half a mile away. It was already hot. The swamp air was like warmed-over subway fumes. Through the drugs, I could feel my pulse throbbing in my various wounds. I reached out and touched the driver's mind; he was thinking about shrimps, a fish-hook wound on his left thumb and a girl with black hair. "Want a lift?" he called.

I thanked him and got in. He gave me a glance and I pinched off his budding twinge of curiosity. It was almost an effort now not to follow his thoughts. It was as though my mind, having learned the trick of communica-

tions with others, instinctively reached out toward them.

An hour later he dropped me on a street corner in a shabby marketing district of the city and drove off. I hoped he made out all right with the dark-haired girl. I spotted a used-clothing store and headed for it.

Twenty minutes later I was back on the sidewalk, dressed in a pinkish-gray suit that had been cut a long time ago by a Latin tailor—maybe to settle a grudge. The shirt that went with it was an unsuccessful violet. The black string tie lent a dubious air of distinction. I'd swapped the railroader's cap for a tarnished beret. The man who had supplied the outfit was still asleep. I figured I'd done him a favor by taking it. I couldn't hope to pass for a fisherman — I wasn't the type. Maybe I'd get by as a coffee-house derelict.

I walked past fly-covered fish stalls, racks of faded garments, grimy vegetables in bins, enough paint-flaked wrought iron to cage a herd of brontosauri, and fetched up at a cab stand. I picked a fat driver with a wart.

"How much to the Delta National Laboratories?"

He rolled an eye toward me, shifted his toothpick.

"What ya wanna go out there for? Nothing out there."

"I'm a tourist," I said. "They

told me before I left home not to miss it."

He grunted, reached back and opened the door. I got in. He flipped his flag down, started up with a clash of gears and pulled out without looking.

"How far is it?" I asked him.

"It ain't far. Mile, mile and a quarter."

"Pretty big place, I guess."

He didn't answer.

We went through a warehousing district, swung left along the waterfront, bumped over railroad tracks, and pulled up at a nine-foot cyclone fence with a locked gate.

"A buck ten," my driver said.

I looked out at the fence, a barren field, a distant group of low buildings. "What's this?"

"This is the place you ast for. That'll be a buck ten, mister."

I touched his mind, planted a couple of false impressions and withdrew. He blinked, then started up, drove around the field, pulled up at an open gate with a blue-uniformed guard. He looked back at me.

"You want I should drive in, sir?"

"I'll get out here."

He jumped out, opened my door, helped me out with a hand under my good elbow. "I'll get your change, sir," he said, reaching for his hip.

"Keep it."

"Thank YOU." He hesitated. "Maybe I oughta stick around. You know."

"I'll be all right."

"I hope so," he said. "A man like you — you and me —" he winked. "After all, we ain't both wearing berets fer nothing."

"True," I said. "Consider your tip doubled. Now drive away into the sunrise and forget you ever saw me."

**H**E got into the car, beaming, and left. I turned and sized up the Delta Labs.

There was nothing fancy about the place; it consisted of low brick and steel buildings, mud, a fence and a guard who was looking at me.

I sauntered over. "I'm from Iowa City," I said. "Now, the rest of the group didn't come — said they'd rather rest one day. But I like to see it all. After all, I paid—"

"Just a minute," the guard said, holding up a palm. "You must be lost, fella. This here ain't no tourist attraction. You can't come in here."

"This is the cameo works?" I said anxiously.

He shook his head. "Too bad you let your cab go. It's an hour yet till the bus comes."

A dun-painted staff car came into view, slowed and swung wide to turn in. I fingered the

driver's mind. The car swerved, braked to a halt. A portly man in the back seat leaned forward, frowning. I touched him. He relaxed. The driver leaned across and opened the door. I went around and got in. The guard was watching, open-mouthed.

I gave him a two-finger salute, and the car pulled through the gate.

"Stop in front of the electronics section," I said. The car pulled up. I got out, went up the steps and pushed through the double glass doors. The car sat for a moment, then moved slowly off. The passenger would be wondering why the driver had stopped—but the driver wouldn't remember.

I was inside the building now; that was a start. I didn't like robbery in broad daylight, but it was a lot easier this way. I wasn't equal to climbing any walls or breaking down any locked doors—not until I'd had a transfusion, a skin graft and about three months' vacation on a warm beach somewhere.

A man in a white smock emerged from a door. He started past me, spun—

"I'm here about the garbage," I said. "Damn fools will put the cans in with the edible. Are you the one called?"

"How's that?"

"I ain't got all the morning!" I shriiled. "You scientist fellers

are all alike. Which way is the watchamacallit — equipment lab?"

"Right along there." He pointed. I didn't bother to thank him. It wouldn't have been in character.

A thin man with a brush mustache eyed me sharply as I pushed through the door. I looked at him, nodding absently. "Carry on with your work," I said. "The audit will be carried out in such a way as to disturb you as little as possible. Just show me your voucher file, if you please."

He sighed and waved toward a filing cabinet. I went to it and pulled a drawer open, glancing about the room. Full shelves were visible through an inner door.

Twenty minutes later I left the building, carrying a sheet metal carton containing the electronic components I needed to build a matter transmitter—except for the parts I'd have to fabricate myself from raw materials. The load was heavy—too heavy for me to carry very far. I parked it at the door and waited until a pick-up truck came along.

It pulled over. The driver climbed out and came up the walk to me. "Are you—uh . . . ?" He scratched his head.

"Right." I waved at my loot. "Put it in the back." He obliged.

Together we rolled toward the gate. The guard held up his hand, came forward to check the truck. He looked surprised when he saw me.

"Just who are you, fella?" he said.

I didn't like tampering with people any more than I had to. It was a lot like stealing from a blind man: easy, but nothing to feel proud of. I gave him a light touch — just the suggestion that what I would say would be full of deep meaning.

"You know — the regular Wednesday shipment," I said darkly. "Keep it quiet. We're all relying on you."

"Sure thing," he said, stepping back. We gunned through the gate. I glanced back to see him looking after the truck, thinking about the Wednesday shipment on a Friday. He decided it was logical, nodded his head and forgot the whole thing.

## V

I'd been riding high for a couple of hours, enjoying the success of the tricks I'd stolen from the Gool. Now I suddenly felt like something the student morticians had been practicing on. I guided my driver through a second-rate residential section, looking for an M.D. shingle on a front lawn.

The one I found didn't inspire much confidence — you could hardly see it for the weeds — but I didn't want to make a big splash. I had to have an assist from my driver to make it to the front door. He got me inside, parked my box beside me and went off to finish his rounds, under the impression that it had been a dull morning.

The doctor was a seedy, seentyish G.P. with a gross tremor of the hands that a good belt of Scotch would have helped. He looked at me as though I'd interrupted something that was either more fun or paid better than anything I was likely to come up with.

"I need my dressing changed, Doc," I said. "And maybe a shot to keep me going."

"I'm not a dope peddler," he snapped. "You've got the wrong place."

"Just a little medication — whatever's usual. It's a burn."

"Who told you to come here?"

I looked at him meaningfully. "The word gets around."

He glared at me, gnashed his plates, then gestured toward a black-varnished door. "Go right in there."

He gaped at my arm when the bandages were off. I took a quick glance and wished I hadn't.

"How did you do this?"

"Smoking in bed," I said.

"Have you got . . . something that . . ."

He caught me before I hit the floor, got me into a chair. Then he had that Scotch he'd been wanting, gave me a shot as an afterthought, and looked at me narrowly.

"I suppose you fell out of that same bed and broke your leg," he said.

"Right. Hell of a dangerous bed."

"I'll be right back." He turned to the door. "Don't go away. I'll just . . . get some gauze."

"Better stay here, Doc. There's plenty of gauze right on that table."

"See here —"

"Skip it, doc. I know all about you."

"What?"

"I said *all* about you."

He set to work then; a guilty conscience is a tough argument to answer.

He plastered my arm with something and rewrapped it, then looked the leg over and made a couple of adjustments to the brace. He clucked over the stitches in my scalp, dabbed something on them that hurt like hell, then shoved an old-fashioned stickpin needle into my good arm.

"That's all I can do for you," he said. He handed me a bottle of pills. "Here are some tablets

to take in an emergency. Now get out."

"Call me a cab, Doc."

I listened while he called, then lit a cigarette and watched through the curtains. The doc stood by, worrying his upper plate and eyeing me. So far I hadn't had to tinker with his mind, but it would be a good idea to check. I felt my way delicately.

— *oh God, why did I . . . long time ago . . . Mary ever knew . . . go to Arizona, start again, too old . . . I saw the nest of fears that gnawed at him, the frustration and the faint flicker of hope but not quite dead. I touched his mind, wiped away scars . . .*

"Here's your car," he said. He opened the door, looking at me. I started past him.

"Are you sure you're all right?" he said.

"Sure, Pop. And don't worry. Everything's going to be okay."

The driver put my boxes on the back seat. I got in beside him and told him to take me to a men's clothing store. He waited while I changed my hand-me-downs for an off-the-hook suit, new shirt and underwear and a replacement beret. It was the only kind of hat that didn't hurt. My issue shoes were still good, but I traded them in on a new pair, added a light raincoat, and

threw in a sturdy suitcase for good measure. The clerk said something about money and I dropped an idea into his mind, paused long enough to add a memory of a fabulous night with a redhead. He hardly noticed me leaving.

I tried not to feel like a shoplifter. After all, it's not every day a man gets a chance to swap drygoods for dreams.

In the cab, I transferred my belongings to the new suitcase, then told the driver to pull up at an anonymous-looking hotel. A four-star admiral with frayed cuffs helped me inside with my luggage. The hackie headed for the bay to get rid of the box under the impression I was a heavy tipper.

I had a meal in my room, a hot bath, and treated myself to a three hour nap. I woke up feeling as though those student embalmers might graduate after all.

I thumbed through the phone book and dialed a number.

"I want a Cadillac or Lincoln," I said. "A new one—not the one you rent for funerals — and a driver who won't mind missing a couple nights' sleep. And put a bed pillow and a blanket in the car."

I went down to the coffee room then for a light meal. I had just finished a cigarette when the car arrived — a dark blue

heavyweight with a high polish and a low silhouette.

"We're going to Denver," I told the driver. "We'll make one stop tomorrow—I have a little shopping to do. I figure about twenty hours. Take a break every hundred miles, and hold it under seventy."

He nodded. I got in the back and sank down in the smell of expensive upholstery.

"I'll cross town and pick up U.S. 84 at —"

"I leave the details to you," I said. He pulled out into the traffic and I got the pillow settled under me and closed my eyes. I'd need all the rest I could get on this trip. I'd heard that compared with the Denver Records Center, Fort Knox was a cinch. I'd find out for sure when I got there.

THE plan I had in mind wasn't the best I could have concocted under more leisurely circumstances. But with every cop in the country under orders to shoot me on sight, I had to move fast. My scheme had the virtue of unlikeness. Once I was safe in the Central Vault—supposed to be the only H-bomb-proof structure ever built—I'd put through a phone call to the outside, telling them to watch a certain spot; say the big desk in the President's office. Then I'd

assemble my matter transmitter and drop some little item right in front of the assembled big shots. They'd have to admit I had something. And this time they'd have to start considering the possibility that I wasn't working for the enemy.

It had been a smooth trip, and I'd caught up on my sleep. Now it was five A.M. and we were into the foothills, half an hour out of Denver. I ran over my lines, planning the trickiest part of the job ahead—the initial approach. I'd listened to a couple of news broadcasts. The FBI was still promising an arrest within hours. I learned that I was lying up, or maybe dead, in the vicinity of Key West, and that the situation was under control. That was fine with me. Nobody would expect me to pop up in Denver, still operating under my own power — and wearing a new suit at that.

The Records Center was north of the city, dug into mountain-side. I steered my chauffeur around the downtown section, out a street lined with dark hamburger joints and unlit gas stations to where a side road branched off. We pulled up. From here on, things might get dangerous—if I was wrong about how easy it was all going to be. I brushed across the driver's mind. He set the brake and got out.

"Don't know how I came to run out of gas, Mr. Brown," he said apologetically. "We just passed a station but it was closed. I guess I'll just have to hike back into town. I sure am sorry; I never did that before."

I told him it was okay, watched as he strode off into the pre-dawn gloom, then got into the front seat and started up. The gate of the Reservation surrounding the Record Center was only a mile away now. I drove slowly, feeling ahead for opposition. There didn't seem to be any. Things were quiet as a poker player with a pat hand. My timing was good.

I stopped in front of the gate, under a floodlight and the watchful eye of an M.P. with a shiny black Tommygun held at the ready. He didn't seem surprised to see me. I rolled down the window as he came over to the car.

"I have an appointment inside, Corporal," I said. I touched his mind. "The password is 'hot-point'."

He nodded, stepped back, and motioned me in. I hesitated. This was almost too easy. I reached out again . . .

" . . . middle of the night . . . password . . . nice car . . . I wish . . ."

I pulled through the gate and

headed for the big parking lot, picking a spot in front of a ramp that led down to a tall steel door. There was no one in sight. I got out, dragging my suitcase. It was heavier now, with the wire and magnets I'd added. I crossed the drive, went up to the doors. The silence was eerie.

I swept the area, searching for minds, found nothing. The shielding, I decided, blanked out everything.

There was a personnel door set in the big panel, with a massive combination lock. I leaned my head against the door and felt for the mechanism, turning the dial right, left, right . . .

The lock opened. I stepped inside, alert.

Silence, darkness. I reached out, sensed walls, slabs of steel, concrete, intricate mechanisms, tunnels deep in the ground . . .

But no personnel. That was surprising—but I wouldn't waste time questioning my good luck. I followed a corridor, opened another door, massive as a vault, passed more halls, more doors. My footsteps made muffled echoes. I passed a final door and came into the heart of the Records Center.

There were lights in the chamber around the grim, featureless periphery of the Central Vault. I set the valise on the floor, sat on it and lit a cigarette.

So far, so good. The Records Center, I saw, had been overrated. Even without my special knowledge, a clever locksmith could have come this far—or almost. But the Big Vault was another matter. The great integrating lock that secured it would yield only to a complex command from the computer set in the wall opposite the vault door. I smoked my cigarette and, with eyes closed, studied the vault.

I finished the cigarette, stepped on it, went to the console, began pressing keys, tapping out the necessary formulations. Half an hour later I finished. There was a whine from a servo motor; a crimson light flashed. I turned and saw the valve cycle open, showing a bright-lit tunnel within.

I dragged my bag inside, threw the lever that closed the entry behind me. A green light went on. I walked along the narrow passage, lined with gray metal shelves stacked with gray steel tape drums, descended steps, came into a larger chamber fitted out with bunks, a tiny galley, toilet facilities, shelves stocked with food. There was a radio, a telephone and a second telephone, bright red. That would be the hot-line to Washington. This was the sanctum sanctorum, where the last survivors could



wait out the final holocaust — indefinitely.

I opened the door of a steel cabinet. Radiation suits, tools, instruments. Another held bedding. I found a tape-player, tapes — even a shelf of books. I found a first aid kit and gratefully gave myself a hypo-spray jolt of neurite. My pains receded.

I went on to the next room; there were wash tubs, a garbage disposal unit, a drier. There was everything here I needed to keep me alive and even comfortable until I could convince someone up above that I shouldn't be shot on sight.

A heavy door barred the way to the room beyond. I turned a wheel, swung the door back, saw more walls lined with filing cabinets, a blank facade of gray steel; and in the center of the room, alone on a squat table — a yellow plastic case that any Sunday Supplement reader would have recognized.

It was a Master Tape, the Ut-  
ter Top Secret Programming document that would direct the terrestrial defense in case of a Gool invasion.

It was almost shocking to see it lying there — unprotected except for the flimsy case. The information it contained in micro-micro dot form could put my world in the palm of the enemy's hand.

The room with the tool kit would be the best place to work, I decided. I brought the suitcase containing the electronic gear back from the outer door where I'd left it, opened it and arranged its contents on the table. According to the Gool these simple components were all I needed. The trick was in knowing how to put them together.

There was work ahead of me now. There were the coils to wind, the intricate antenna arrays to lay out; but before I started, I'd take time to call Kayle—or whoever I could get at the other end of the hot-line. They'd be a little startled when I turned up at the heart of the defenses they were trying to shield.

I picked up the receiver and a voice spoke:

"Well, Granthan. So you finally made it."

## VI

"**H**ERE are your instructions," Kayle was saying. "Open the vault door. Come out — stripped — and go to the center of the parking lot. Stand there with your hands over your head. A single helicopter manned by a volunteer will approach and drop a gas canister. It won't be lethal, I promise you that. Once you're unconscious, I'll personal-

ly see to it that you're transported to the Institute in safety. Every effort will then be made to overcome the Gool conditioning. If we're successful, you'll be awokened. If not . . ."

He let the sentence hang. It didn't need to be finished. I understood what he meant.

I was listening. I was still not too worried. Here I was safe against anything until the food ran out—and that wouldn't be for months.

"You're bluffing, Kayle," I said. "You're trying to put the best face on something that you can't control. If you'd —"

"You were careless at Delta Labs, Granthan. There were too many people with odd blanks in their memories and too many unusual occurrences, all on the same day. You tipped your hand. Once we knew what we were up against, it was simply a matter of following you at an adequate distance. We have certain shielding materials, as you know. We tried them all. There's a new one that's quite effective.

"But as I was saying, we've kept you under constant surveillance. When we saw which way you were heading, we just stayed out of sight and let you trap yourself."

"You're lying. Why would you want me here?"

"That's very simple," Kayle

said harshly. "It's the finest trap ever built by man—and you're safely in it."

"Safely is right. I have everything I need here. And that brings me to my reason for being here—in case you're curious. I'm going to build a matter transmitter. And to prove my good faith, I'll transmit the Master Tape to you. I'll show you that I could have stolen the damned thing if I'd wanted to."

"Indeed? Tell me, Granthan, do you really think we'd be fools enough to leave the Master Tape behind when we evacuated the area?"

"I don't know about that—but it's here."

"Sorry," Kayle said. "You're deluding yourself." His voice was suddenly softer, some of the triumph gone from it. "Don't bother struggling, Granthan. The finest brains in the country have combined to place you where you are. You haven't a chance, except to do as I say. Make it easy on yourself. I have no wish to extend your ordeal."

"You can't touch me, Kayle. This vault is proof against a hell-bomb, and it's stocked for a siege . . ."

"That's right," Kayle said. His voice sounded tired. "It's proof against a hell-bomb. But what if the hell-bomb's in the vault with you?"

I FELT like a demolition man, working to defuse a blockbuster, who's suddenly heard a loud click! from the detonator. I dropped the phone, stared around the room. I saw nothing that could be a bomb. I ran to the next room, the one beyond. Nothing. I went back to the phone, grabbed it up.

"You ought to know better than to bluff now, Kayle!" I yelled. "I wouldn't leave this spot now for half a dozen hypothetical hell-bombs!"

"In the center room," Kayle said. "Lift the cover over the floor drain. You'll find it there. You know what they look like. Don't tamper with its mechanism; it's internally trapped. You'll have to take my word for it we didn't bother installing a dummy."

I dropped the phone, hurried to the spot Kayle had described. The bomb casing was there — a dull gray ovoid, with a lifting eye set in the top. It didn't look dangerous. It just lay quietly, waiting . . .

Back at the telephone, I had trouble finding my voice. "How long?" I croaked.

"It was triggered when you entered the vault," Kayle said. "There's a time mechanism. It's irreversible; you can't force anyone to cancel it. And it's no use your hiding in the outer passages.

"The whole center will be destroyed in the blast. Even it can't stand against a bomb buried in its heart. But we'll gladly sacrifice the center to eliminate you."

"How long!"

"I suggest you come out quickly, so that a crew can enter the vault to disarm the bomb."

"How long?"

"When you're ready to emerge, call me." The line went dead.

I put the phone back in its cradle carefully, like a rare and valuable egg.

I tried to think. I'd been charging full speed ahead ever since I had decided on my scheme of action while I was still riding the surf off the Florida coast, and I'd stuck to it. Now it had hatched in my face — and the thing that had crawled out wasn't the downy little chick of success. It had teeth and claws and was eyeing me like a basilisk . . .

But I still had unplayed aces — if there was time.

I had meant to use the matter transmitter to stage a dramatic proof that I wasn't the tool of the enemy. The demonstration would be more dramatic than I'd planned. The bomb would fit the machine as easily as the tape. The wheels would be surprised when their firecracker went off — right on schedule — in the middle of the Mojave Desert.

I set to work, my heart pounding. If I could bring this off — if I had time — if the transmitter worked as advertised . . .

The stolen knowledge flowed smoothly, effortlessly. It was as though I had been assembling matter transmitters for years, knew every step by heart. First the moebius windings, yard after yard of heavy copper around a core of carbon; then the power supply, the first and second stage amplifiers . . .

How long? In the sump in the next room, the bomb lay quietly ticking. How long . . . ?

THE main assembly was ready now. I laid out cables, tying my apparatus in to the atomic power-source buried under the vault. The demand, for one short instant, would tax even those mighty engines. I fixed hooks at the proper points in the room, wove soft aluminum wire in the correct pattern. I was almost finished now. How long? I made the last connections, cleared away the litter. The matter transmitter stood on the table, complete. At any instant, the bomb would reduce it — and the secret of its construction — to incandescent gas — unless I transmitted the bomb out of range first. I turned toward the laundry room — and the telephone rang.

I hesitated, then crossed the room and snatched it up.

"Listen to me," Kayle said grimly. "Give me straight, fast answers. You said the Master Tape was there, in the vault with you. Now tell me: What does it look like?"

"What?"

"The . . . ah . . . dummy tape. What is its appearance?"

"It's a roughly square plastic container, bright yellow, about a foot thick. What about it?"

Kayle's voice sounded strained. "I've made inquiries. No one here seems to know the exact present location of the Master Tape. Each department says that they were under the impression that another handled the matter. I'm unable to learn who, precisely, removed the Tape from the vault. Now you say there is a yellow plastic container —"

"I know what the Master Tape looks like," I said. "This is either it or a hell of a good copy."

"Granthan," Kayle said. There was a note of desperation in his voice now. "There have been some blunders made. I knew you were under the influence of the Gool. It didn't occur to me that I might be too. Why did I make it possible for you to successfully penetrate to the Central Vault? There were a hundred simpler ways in which I could have dealt with the problem. We're in trou-

ble, Granthan, serious trouble. The tape you have there is genuine. We've all played into the enemy's hands."

"You're wasting valuable time, Kayle," I snapped. "When does the bomb go up?"

"Granthan, there's little time left. Bring the Master Tape and leave the vault —"

"No dice, Kayle. I'm staying until I finish the transmitter, then —"

"Granthan! If there's anything to your mad idea of such a machine, destroy it! Quickly! Don't you see the Gool would only have given you the secret in order to enable you to steal the tape?"

I cut him off. In the sudden silence, I heard a distant sound — or had I sensed a thought? I strained outward . . .

"... volunteered . . . damn fool . . . thing on my head is heavy . . . better work . . .

"... now . . . okay . . . valve, gas . . . kills in a split second . . . then get out . . ."

I stabbed out, pushed through the obscuring veil of masonry, sensed a man in the computer room, dressed in gray coveralls, a grotesque shield over his head and shoulders. He reached for a red-painted valve —

I struck at his mind, felt him stagger back, fall. I fumbled in his brain, stimulated the sleep

center. He sank deep into unconsciousness. I leaned against the table, weak with the reaction. Kayle had almost tricked me that time.

I reached out again, swept the area with desperate urgency. Far away, I sensed the hazy clutter of many minds, out of range. There was nothing more. The poisonous gas had been the only threat — except the bomb itself. But I had to move fast, before my time ran out, to transmit the bomb to a desert area . . .

I paused, stood frozen in mid-move. A desert. What desert?

The transmitter operated in accordance with as rigid a set of laws as did the planets swinging in their orbits; strange laws, but laws of nature none the less. No receiver was required. The destination of the mass under transmission was determined by the operator, holding in his mind the five-dimensional conceptualization of the target, guiding the action of the machine.

And I had no target.

I could no more direct the bomb to a desert without a five-fold grasp of its multi-ordinal spatial, temporal, and entropic co-ordinates than I could fire a rifle at a target in the dark.

I was like a man with a grenade in his hand, pin pulled — and locked in a cell.

I swept the exocosm again, desperately. And caught a thin, live line. I traced it; it cut through the mountain, dived deep underground, crossed the boundless plain . . .

Never branching, it bored on, turning upward now — and ending.

I rested, gathering strength, then probed, straining . . .

There was a room, men. I recognized Kayle, gray-faced, haggard. A tall man in braided blue stood near him. Others stood silently by, tension on every face. Maps covered the wall behind them.

I was looking into the War Room at the Pentagon in Washington. The line I had traced was the telephonic hot-line, the top-security link between the Record Center and the command level. It was a heavy cable, well protected and always open. It would free me from the trap. With Gool-tutored skill I scanned the room, memorized its co-ordinates. Then I withdrew.

Like a swimmer coming up from a long dive, I fought my way back to the level of immediate awareness. I sagged into a chair, blinking at the drab walls, the complexity of the transmitter. I must move fast now, place the bomb in the transmitter's field, direct it at the target. With an effort I got to my feet, went to

the sump, lifted the cover. I grasped the lifting eye, strained — and the bomb came up, out onto the floor. I dragged it to the transmitter . . .

And only then realized what I'd been about to do.

My target.

The War Room — the nerve-center of Earth's defenses. And I had been ready to dump the hell bomb there. In my frenzy to be rid of it I would have played into the hands of the Gool.

## VII

I WENT to the phone.

"Kayle! I guess you've got a recorder on the line. I'll give you the details of the transmitter circuits. It's complicated, but fifteen minutes ought to —"

"No time," Kayle cut in. "I'm sorry about everything, Granthan. If you've finished the machine, it's a tragedy for humanity — if it works. I can only ask you to try — when the Gool command comes — not to give them what they want. I'll tell you, now, Granthan. The bomb blows in —" there was a pause — "two minutes and twenty-one seconds. Try to hold them off. If you can, stand against them for that long at least —"

I slammed the phone down, cold sweat popping out across my face. Two minutes . . . too late

for anything. The men in the War Room would never know how close I had come to beating the Gool — and them.

But I could still save the Master Tape. I wrestled the yellow plastic case that housed the tape onto the table, into the machine.

And the world vanished in a blaze of darkness, a clamor of silence.

**NOW, MASTERS! NOW! LINK UP! LINK UP!**

Like a bad dream coming back in daylight, I felt the obscene presence of massed Gool minds, attenuated by distance but terrible in their power, probing, thrusting. I fought back, struggling against paralysis, trying to gather my strength, use what I had learned . . .

**SEE, MASTERS, HOW IT WOULD ELUDE US. BLANK IT OFF, TOGETHER NOW . . .**

The paths closed before me. My mind writhed, twisted, darted here and there — and met only the impenetrable shield of the Gool defenses.

**IT TIRES, MASTERS. WORK SWIFTLY NOW. LET US IMPRESS ON THE SUBJECT THE CO-ORDINATES OF THE BRAIN PIT.** The conceptualization drifted into my mind. **HERE, MAN. TRANSMIT THE TAPE HERE!**

As from a distance, the monitor personality fraction watched

the struggle. Kayle had been right. The Gool had waited — and now their moment had come. Even my last impulse of defiance — to place the tape in the machine — had been at the Gool command. They had looked into my mind. They understand psychology as no human analyst ever could; and they had led me in the most effective way possible, by letting me believe I was the master. They had made use of my human ingenuity to carry out their wishes — and Kayle had made it easy for them by evacuating a twenty-mile radius around me, leaving the field clear for the Gool.

**HERE —** The Gool voice rang like a bell in my mind: **TRANSMIT THE TAPE HERE!**

Even as I fought against the impulse to comply, I felt my arm twitch toward the machine.

**THROW THE SWITCH!** the voice thundered.

I struggled, willed my arm to stay at my side. Only a minute longer, I thought. Only a minute more, and the bomb would save me . . .

**LINK UP, MASTERS!**  
**I WILL NOT LINK. YOU PLOT TO FEED AT MY EXPENSE.**

**NO! BY THE MOTHER WORM, I PLEDGE MY GROOVE AT THE EATING**

**ROUGH. FOR US THE MAN WILL GUT THE GREAT VAULT OF HIS NEST WORLD!**

**ALREADY YOU BLOAT AT OUR EXPENSE!**

**FOOL! WOULD YOU BICKER NOW? LINK UP!**

**THE** Gool raged — and I grasped for an elusive thought and held it. The bomb, only a few feet away. The waiting machine. And the Gool had given me the co-ordinates of their cavern . . .

With infinite sluggishness, I moved.

**LINK UP, MASTERS! THEN ALL WILL FEED . . .**

**IT IS A TRICK. I WILL NOT LINK.**

I found the bomb, fumbled for a grip.

**DISASTER, MASTERS!**  
**NOW IS THE PRIZE LOST TO US, UNLESS YOU JOIN WITH ME!**

My breath choked off in my throat; a hideous pain coiled outward from my chest. But it was unimportant. Only the bomb mattered. I tottered, groping. There was the table; the transmitter . . .

I lifted the bomb, felt the half-healed skin of my burned arm crackle as I strained . . .

I thrust the case containing the Master Tape out of the field of the transmitter, then pushed,

half-rolled the bomb into position. I groped for the switch, found it. I tried to draw breath, felt only a surge of agony. Blackness was closing in . . .

The co-ordinates . . .

From the whirling fog of pain and darkness, I brought the target concept of the Gool cavern into view, clarified it, held it . . .

**MASTERS! HOLD THE MAN! DISASTER!**

Then I felt the Gool, their suspicions yielding to the panic in the mind of the Prime Overlord, link their power against me. I stood paralyzed, felt my identity dissolving like water pouring from a smashed pot. I tried to remember — but it was too faint, too far away.

Then from somewhere a voice seemed to cut in, the calm voice of an emergency reserve personality fraction. "You are under attack. Activate the reserve plan. Level Five. Use Level Five. Act now. Use Level Five . . ."

Through the miasma of Gool pressure, I felt the hairs stiffen on the back of my neck. All around me the Gool voices raged, a swelling symphony of discord. But they were nothing. Level Five . . .

There was no turning back. The compulsions were there, acting even as I drew in a breath to howl my terror —

Level Five. Down past the

shapes of dreams, the intense faces of hallucination; Level Three; Level Four and the silent ranked memories . . . And deeper still —

Into a region of looming gibbering horror, of shadowy moving shapes of evil, of dreaded presences that lurked at the edge of vision . . .

Down amid the clamor of voiceless fears, the mounting hungers, the reaching claws of all that man had feared since the first tailless primate screamed out his terror in a tree-top: the fear of falling, the fear of heights.

Down to Level Five. Nightmare level.

I groped outward, found the plane of contact — and hurled the weight of man's ancient fears at the waiting Gool — and in their black confining caves deep in the rock of a far world, they felt the roaring tide of fear — fear of the dark, and of living burial. The horrors in man's secret mind confronted the horrors of the Gool Brain Pit. And I felt them break, retreat in blind panic from me —

All but one. The Prime Overlord reeled back with the rest, but his was a mind of terrible power. I sensed for a moment his bloated immense form, the seething gnawing hungers, insatiable, never to be appeased. Then he

rallied — but he was alone now. *LINK UP, MASTERS! THE PRIZE IS LOST. KILL THE MAN! KILL THE MAN!*

I felt a knife at my heart. It fluttered — and stopped. And in that instant, I broke past his control, threw the switch. There was the sharp crack of imploding air. Then I was floating down, ever down, and all sensation was far away.

*MASTERS! KILL TH*

The pain cut off in an instant of profound silence and utter dark.

Then sound roared in my ears, and I felt the harsh grate of the floor against my face as I fell, and then I knew nothing more.

**“I** HOPE,” General Titus was saying, “that you'll accept the decoration now, Mr. Granthan. It will be the first time in history that a civilian has been accorded this honor — and you deserve it.”

I was lying in a clean white bed, propped up by big soft pillows, with a couple of good-looking nurses hovering a few feet away. I was in a mood to tolerate even Titus.

“Thanks, General,” I said. “I suggest you give the medal to the volunteer who came in to gas me. He knew what he was going up against; I didn't.”

“It's over, now, Granthan,”

Kayle said. He attempted to beam, settled for a frosty smile. “You surely understand —”

“Understanding,” I said. “That's all we need to turn this planet — and a lot of other ones — into the kind of worlds the human mind needs to expand into.”

“You're tired, Granthan,” Kayle said. “You get some rest. In a few weeks you'll be back on the job, as good as new.”

“That's where the key is,” I said. “In our minds; there's so much there, and we haven't even scratched the surface. To the mind nothing is impossible. Matter is an illusion, space and time are just convenient fictions —”

“I'll leave the medal here, Mr. Granthan. When you feel equal to it, we'll make the official presentation. Television . . .”

He faded off as I closed my eyes and thought about things that had been clamoring for attention ever since I'd met the Gool, but hadn't had time to explore. My arm . . .

I felt my way along it — from inside — tracing the area of damage, watching as the bodily defenses worked away, toiling to renew, replace. It was a slow, mindless process. But if I helped a little . . .

It was easy. The pattern was there. I felt the tissues renew themselves, the skin regenerate.

The bone was more difficult. I searched out the necessary minerals, diverted blood; the broken ends knit . . .

The nurse was bending over me, a bowl of soup in her hand.

“**Y**OU'VE been asleep for a long time, sir,” she said, smiling. “How about some nice chicken broth now?”

I ate the soup and asked for more. A doctor came and peeled back my bandages, did a double-take, and rushed away. I looked. The skin was new and pink, like a baby's — but it was all there. I flexed my right leg; there was no twinge of pain.

I listened for a while as the doctors gabbled, clucked, probed and made pronouncements. Then I closed my eyes again. I thought about the matter transmitter. The government was sitting on it, of course. A military secret of the greatest importance, Titus called it. Maybe someday the public would hear about it; in the meantime —

“How about letting me out of here?” I said suddenly. A pop-eyed doctor with a fringe of gray hair blinked at me, went back to fingering my arm. Kayle hove into view.

“I want out,” I said. “I'm recovered, right? So now just give me my clothes.”

“Now, now, just relax, Grant-

han. You know it's not as simple as that. There are a lot of matters we must go over."

"The war's over," I said. "You admitted that. I want out."

"Sorry," Kayle shook his head. "That's out of the question."

"Doc," I said. "Am I well?"

"Yes," he said. "Amazing case. You're as fit as you'll ever be; I've never —"

"I'm afraid you'll have to resign yourself to being here for a while longer, Granthan," Kayle said. "After all, we can't —"

"Can't let the secret of matter transmission run around loose, hey? So until you figure out the angles, I'm a prisoner, right?"

"I'd hardly call it that, Granhan. Still . . ."

I closed my eyes. The matter transmitter — a strange device. A field, not distorting space, but accentuating certain characteristics of a matter field in space-time, subtly shifting relationships . . .

Just as the mind could compare unrelated data, draw from them new concepts, new parallels . . .

The circuits of the matter

transmitter . . . and the patterns of the mind . . .

The exocosm and the endocosm, like the skin and the orange, everywhere in contact . . .

Somewhere there was a beach of white sand, and dunes with graceful sea-oats that leaned in a gentle wind. There was blue water to the far horizon, and a blue sky, and nowhere were there any generals with medals and television cameras, or flint-eyed bureaucrats with long schemes . . .

And with this gentle folding . . . thus . . .

And a pressure here . . . so . . .

I opened my eyes, raised myself on one elbow — and saw the sea. The sun was hot on my body, but not too hot, and the sand was white as sugar. Far away, a seagull tilted, circling.

A wave rolled in, washed my foot in cool water.

I lay on my back, and looked up at white clouds in a blue sky, and smiled — then laughed aloud.

Distantly the seagull's cry echoed my laughter.

— KEITH LAUMER

In the current issue of *IF*:

#### THE GREEN WORLD

A gripping complete short novel by Hal Clement,  
author of *Mission of Gravity*, *Needle*, etc.

GALAXY



## GALAXY'S 5 Star Shelf

AT THE EARTH'S CORE by Edgar Rice Burroughs. Ace Books.

ALTHOUGH JULES Verne wrote the most famous and most enduring story about a hollow earth, he didn't hold a patent on this valuable hunk of real estate. Author Burroughs staked out his claim in this rip-snorting adventure set "At the Earth's Core".

The entire adventure is strictly from accident. An aged inventor and his wealthy young backer seek merely to test out the invention, a mechanical mole that

passes loose rock from the drill at the nose through a hollow double skin to the stern.

Pellucidar, as Burroughs named his interior world, is the inverse image of the exterior in the matter of land and water distribution. Thus the total land area of this world within a world comes to 124 million square miles, compared to the surface's mere 53 million. As Burroughs puts it, "We have the strange anomaly of a larger world within a smaller one!"

Pellucidar's perpetual noon is

★★★★★ SHELF

lighted by a tiny sun, suspended at the exact center of Earth's sphere. Burroughs polishes off the problem of gravitational attraction by placing the center of gravity midway through the 500 mile thick crust separating Pellucidar from the surface.

The inner world, having cooled later, is much younger than ours, making for a hodge-podge ecology. Burroughs has much fun mixing perils of Pliocene, Pleistocene and Pauline.

Mankind, two separate species, is subservient to the dominant race, rhamphorhynchus-like creatures, deaf, but able to communicate, not by telepathy, but "by projecting their thoughts into the fourth dimension, when they become appreciable to the sixth sense of the listener." All are females, having discovered how to reproduce without male assistance. They are highly civilized, philosophical creatures who consider Man a lower order and debate pro and con his ability to reason, meanwhile employing him as slave, and clandestinely as food. Burroughs incorporates a ritual feeding scene that is a spell-binder of pure horror.

In his world of eternal noon, duration is strictly relative and Time as we measure it does not exist. Even the dominant race takes no account of it, their liter-

ary works employing only the present tense.

There are holes as big as Pellucidar itself in his theories, but Burroughs's concepts are intriguing and his combat scenes gripping. Although the reader must wade at least twenty-five pages into the book before he can cease to be annoyed by the author's stilted and florid style, by then he has reached the point of no return.

**THE MOON MAID** by Edgar Rice Burroughs. Ace Books.

**THERE ARE** many proverbs that boil down to, "If you've got hold of a good thing, milk it to death." Burroughs's hollow sphere Earth seemed so good to him that he applied it to the Moon, also.

His story begins in 1967 aboard a giant Chicago to Paris airliner that races along a thousand feet above the surface and is motivated by wireless energy from power plants thousands of miles distant.

The narrator, ancestor of the actual protagonist, owes his memory of subsequent events to total recollection of several reincarnated existences. This simple literary device eliminates the need for such a crudity as a time machine and obviously opens the way for sequel after sequel.

The descendent of the narrator, 100 years in the future, is the

leader of a five man expedition to Mars, made possible by radio exchange of information with the Martians who have isolated the Eighth Barsoomian (Martian) Ray, along with the Eighth Rays of the other planets. This is also a literary rather than a scientific device, like the Cavorite of H. G. Wells's moon explorers, that might be called an enabling device, since without it there's no story and with it there's no explanation.

The ship's engines are sabotaged by their inventor, the disgruntled second-in-command and is stranded on, or rather in, the moon. Its crust is riddled by thousands of craters that serve to supply both light and heat to the interior, although the primary source of light is the high radium content of the soil.

Julian 5th, separated early from his companions, is not re-united with them until after several captures by and escapes from primitive humanoid quadrupeds and/or semi-civilized humans.

**PELLUCIDAR** by Edgar Rice Burroughs. Ace Books.

**IN THIS** sequel to "At the Earth's Core," Burroughs chronicles the search of David Innes for his Stone Age mate, Dian. He has returned from the surface in the steel mole loaded with books and materials to further his plans to purge Pellucidar of the intelligent

reptiles and create a human civilization based on the best of twentieth century technology, with himself as benevolently dictatorial emperor.

Most of Burroughs's theories make for hard swallowing. The horizonless inner world diminishes upward into an indefinable dim distance. This I'd like to see, as well as his pendent world, hanging only a mile above the inner surface with its axis parallel to the surface. All its plains and forests, lakes and rivers become visible as it rotates, providing a clock for a world that otherwise has no way of determining time. One suspects that Burroughs planted it there like a big seed that was to germinate eventually in another sequel.

But, argue as one might with his scientific theories, once Burroughs establishes his background, his reader has no time to quibble.

**THE MOON MEN** by Edgar Rice Burroughs. Ace Books.

**THIS SEQUEL** to "The Moon Maid" actually comprises two novels; "The Moon Men," which is the story of Julian 9th in the 22nd Century and "The Red Hawk," about Julian 20th in the 25th Century.

The renegade villain of "Moon Maid", Orthis, is killed by Julian 5th, but not until he assembles a horde of semi-savages from the

Moon who conquer and lay Earth waste.

"The Moon Men" is the account of Julian 9th's solitary, hopeless struggle against the Kal-kar conquerors and the complete collapse of civilization.

In "The Red Hawk", the passage of centuries has seen the Kal-kars pushed back to the seacoast. The Hawk, Julian 20th, mounts the final offensive designed to push them into the sea.

**THUVIA, MAID OF MARS** by Edgar Rice Burroughs. Ace Books.

AT THIS point even the most neophytic of readers must be aware that this is the fabled Burroughs of yore whose books were translated into some forty languages and sold an equal number of million copies. Yet an entire generation has grown up inexplicably Burroughs-less. The great majority of his books have been out of print for a score of years, the only reminder of his former glory is the release of an occasional laughable Tarzan film.

Burroughs antedated van Vogt's vision of a contradictory civilization, half barbaric, half technologically advanced, by some three decades. In the first three novels of the series, John Carter of Virginia settles just about all the major problems besetting wartorn Mars. His son, Carthoris, is the

hero of "Thuvia" and the action arises from his supposed aerial abduction of Thuvia.

By modern standards, Burroughs's science is pretty rudimentary, viz. the interplanetary ether, Eighth Rays, Hollow planets, etc. Bear in mind, however, that he wrote when many homes still used gas for lighting; sound pictures hadn't been invented, to say nothing of TV; aircraft were slow, clumsy crudities. In fact, Burroughs's airships really were ships of the air, with polished decks, rails, below-deck cabins and a top speed of a lumbering two hundred miles per hour.

"Thuvia" is full of abductions, captures, escapes and recaptures in the best Burroughs tradition and it has something else for the devoted Burroughsophile; the fondly remembered "giant bowmen of Lothar," materialized from Barsoom's dead past by the handful of Lothar's living defenders.

Ratings? Let's not try. It's hard to evaluate them in terms of today. I'm afraid that, like so many others, my boyhood was too entangled with the Burroughs books for me to be objective. Frankly, even though I hadn't read any of his books for well over twenty years, these past weeks have been Ol' Nostalgia Month for me. The old boy has the power to send me still!

— FLOYD C. GALE

## He refused to believe — until he looked beyond

**JESS STEARN**, newspaperman and best-selling author, is a man with a passion for facts. He started out a confirmed skeptic — certain that reports of clairvoyance and ESP were based on coincidence and fraud.

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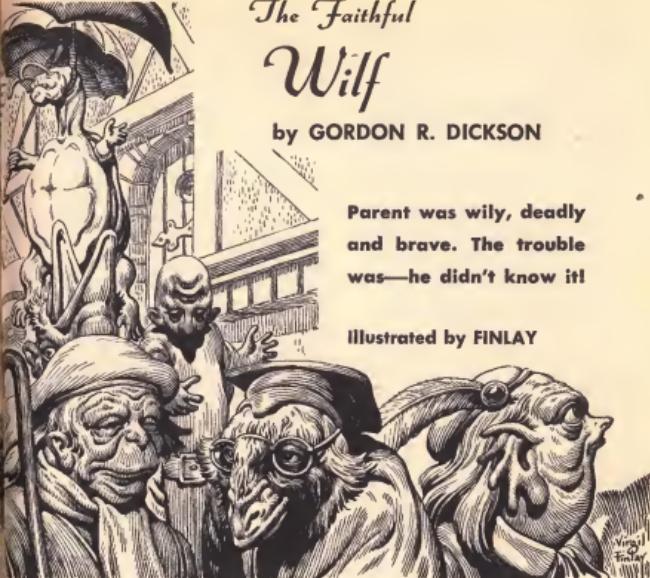


# I

"I SUPPOSE you think of it sometimes," sighed Lucy Parent, as their Mordaunti spaceship descended on the world that was its midway stop to the Mordaunti capital world of Cayahno. Cayahno was something like six hundred light years in toward the center of the galaxy from Earth. The Mordaunti Ambassador, Ar-

knok, had explained it would be necessary to let down here at Bug'raf to replate the drive chamber.

"Think of what?" said Tom Parent. He was pacing up and down by their stateroom viewer. He alternated between casting glances at the glittering cityport toward which they were descending and glancing at the top-secret subspace communication that had



# The Faithful Wilf

by GORDON R. DICKSON

Parent was wily, deadly and brave. The trouble was—he didn't know it!

Illustrated by FINLAY

just reached him from his superiors back on Earth. The communication was, of course, in code. But Tom had had the keys to all recent codes hypnoed into him before they left Earth.

Lucy sighed again. "About what it'd be like not being married, again."

"Not married? What?" said Tom, stopping his pacing suddenly. "Why, of course not. Certainly

not. What made you think of that?"

"Oh, nothing," sighed Lucy.

"If you don't mind," said Tom, "I have something urgent on my mind at the moment."

"All men do," said Lucy, studying her fingernails. "I suppose it's only natural. Women aren't like that. Marriage means a lot to a woman."

"Lucy, if you don't mind—"

Tom was suddenly interrupted by the gentle chiming of their state-room door. "Come in."

The door opened. A seven-foot humanoid looking like a satanic Tarzan in purple robes stepped into the room. A weapons harness covered the robes, various types of weapons depending from it. The humanoid touched pale green fingers to his winged skullcap.

"Good morning, Mr. Ambassador," said Tom, touching his own brown crew-cut in similar fashion. "May the Mordaunti live forever."

"And yourrr own rrrace also," replied the Ambassador, rolling his r's like a Scotsman. His black eyes glittered as he added affably, "I thocht I'd tell you therrees time for you to stroll about the Bug'raf capital below, if you wish. We'll be here at least half a day."

"Stroll? Well! Well, that's just fine!" cried Tom, happily. "Yes. We will. Thank you so much, Mr. Ambassador."

"Think nothing of it," replied the other. Touching his head again, he went out.

"You go by yourself," said Lucy sadly. "I think I'll just stay here."

"You will not!" Tom snapped. Lucy sat up and stared at him.

HALF AN HOUR later the ship was down, and Tom and Lucy strolled off the landing area

into the winding, colorful streets that looked as if they had been lifted out of the illustrations of some old fairy-tale book. The streets were as warm with a hundred alien races. Once out of sight of the ship, Tom started walking at a pace that had Lucy almost trotting to keep up.

"Tom!" She grabbed hold of his arm. "Slow down! I can't—"

"Just around this corner," said Tom, dragging her around it and down at seats of something like a sidewalk cafe. A robot rolled up. "Alcohol and cold distilled water, two," he said in the local lingua franca. The robot rolled away. "I couldn't talk on the ship. Something's come up."

"But you're on vacation!" cried Lucy. "This is supposed to be our second honeymoon!" She broke off suddenly and eyed him sharply. The robot rolled up and deposited two squeeze-bulbs before them. Tom produced his identity papers with the Mordaunti seal. The robot punched a hole in them and went away.

"Well—" said Tom.

"Or is it?"

"Well," said Tom, avoiding her eye.

"You told me — you *told* me this was a vacation! I might have known there was something wrong the way you've been acting. So. . . . So *absentminded* about things. Well," said Lucy,

"it doesn't matter, of course. I don't mind. Go right ahead." She fumbled angrily in her wristpurse and produced a small lace handkerchief.

"Good!" whispered Tom. Lucy checked herself, surprised, with the handkerchief half-raised.

"Good?"

"We're away from the ship but there still may be spies. That'll confuse them. Look, Lucy, I didn't know about this myself until I got the sub-space message just now. The Office Upstairs back on Earth just said they might have a little job for me on Cayahno. They didn't even let me in on it —after all, I'm still only a First Assistant Secretary in the Foreign Office's Department of New Governments."

"You let me think it was going to be a real vacation!"

"Now, honey, be reasonable."

"I won't!"

"Our lives are in danger."

"Oh!" Lucy closed the mouth she had just opened preparatory to saying some more, looked around and put the handkerchief away. She leaned toward Tom. "In danger?" she whispered.

"That's what I've been trying to tell you," said Tom in a low voice, "and it's not my fault. The Office Upstairs just gave me the idea they wanted me to do some little red-tape thing, like make a duty call on one of the Mordaunti



### *The Mordaunti Ambassador*

authorities. Now, this message lets me in on it. And it's so secret they couldn't even trust me with the knowledge before we left."

"Tell me," said Lucy.

"I'm not supposed to—"

"Oh!" gasped Lucy. "It's all right if my life is in danger; but I'm not supposed to know why!"

"—But," said Tom, "as I was going to say if you'd ever let me finish saying something, I'm going to. You may have to carry on if anything happens to me."

"Tom!" Lucy's eyes grew suddenly large.

"**N**O USE not facing things," said Tom bravely. "Well, here it is. On Cayahno—the capital world of the Mordaunti to

which we're headed—there's going to be a gathering of representatives from the forty-three great interstellar powers in this section of the galaxy."

"Forty-three?" squeaked Lucy. "The Oprinkians, the Mordaunti, us—and who else?"

Tom, said sadly, "We are not listed among the forty-three. The Jaktals were, of course. And everyone knows we've taken over their empire\* by now. But no invitation has been sent to us."

"Why, that's terrible!"

"More than terrible. Dangerous. It means the other forty-two great interstellar empires are thinking of dividing our own and the Jaktal territory between them. The Oprinkians\*\* are still our friends, of course. They suggested we secretly send a man and have him just walk in and take over the Jaktal chair at the meeting."

"You?" said Lucy.

"Me," said Tom. "The Office Upstairs thought a minor official like myself would never be suspected of being sent to speak for the whole human empire. Of course, I won't actually speak for us. I'll simply grab the Jaktal seat and hold it. Once I'm there, I'm safe. No one will act against me for fear of endangering his own immunity as Ambassador. But I've got to get there first."

"Let's go back to the ship and

lock ourselves in and throw away the key."

"That might not be a bad idea. However—" Tom broke off suddenly and looked up. A sudden hush had fallen over the street. Everyone seemed to have disappeared. Then, suddenly, around the corner floated a metal platform with two odd-looking aliens of different species on it.

## II

THE FIRST was a stubby individual wearing a harness draped with guns, knives and other fierce gadgets. He wore nothing else. He appeared completely hairless, his skin a leathery brown. His face looked something like a bulldog's. The other alien beside him was about three feet tall, wearing a robe, a sort of magician's cone-shaped hat and a long white beard, above which showed a bulbous nose and two large, purple trusting eyes.

"Greetings!" boomed the harnessed individual, in the local *lingua franca*, bringing the platform to a halt at their table. As it settled to the ground he took a device from his harness and looked through it at Tom. "Magnificent! Just as advertised! .72 on the fe-

\* WHO DARES A BULBUR EAT?  
Galaxy, October, 1962

\*\*REX AND MR. REJILLA,  
Galaxy, January, 1958

rocity scale. Congratulations, my boy. I am Drakvil, Master Assassin—and you are my apprentice."

"Apprentice?" said Tom.

"Hard to believe, I know. But you are. I just picked you."

"Pardon me," said Tom. "But overwhelming as the honor is..."

"Tut-tut," said Drakvil. "Say no more."

"—I must decline—"

"WHAT?"

Drakvil suddenly paled all over his body until he was almost white. Gradually his color came back. He slowly extended a hand and pointed at Lucy.

"So," he said. "I think I see. Does that wilf belong to you?"

"I certainly do!" said Lucy.

Drakvil's arm dropped.

"Wilf-ridden!" he breathed. "I get an apprentice with one of the finest aptitude ratings ever recorded; and it has a wilf! But don't worry, my boy." He got down and began to rummage inside the back edge of the platform. "I'll free you."

"Tom!" said Lucy, clutching his arm.

"Shh," hissed Tom. "It's all right—"

He was interrupted as the second alien on the platform suddenly began to cry in a timid, despairing fashion.

"What's wrong with you?" said Tom, turning on it.

"Oh, sir," sobbed the smaller

alien. "It would've been such an honor for a simple pjanik pjanik like me. No real Assassin would lower himself to slay a pjanik under the pjanik class. Of course I know your honor's still only an apprentice and it'd only be a practice assassination, but—"

"Wait a minute," said Tom.

The pjanik wiped its eyes with its white beard and sniffed.

"You mean," said Tom. "I'm supposed to practice assassinat-ing on you?"

"OF COURSE," snapped Drakvil, coming up with a metal plate tucked under one arm. "Begin with live targets right away. The only way. I've got no patience with Master Assassins that start their apprentices out on simulacrum. No meat. No feel to it." He unhooked one of the gadgets from his harness. "Here," he said, "you can borrow my *loset*." He shoved it into Tom's hand. "Meanwhile, I will psychoanalyze you and rid you of this wilfish affliction."

"You don't understand, I'm afraid, sir Assassin," said Tom in smooth, diplomatic tones. "I'm just ashore for a few hours from the Mordaunti ship at the space-port."

Drakvil shook his head. "Tut-tut, delusions as well. Not surprising, I suppose. My lad, the Mordaunti ship took off just five

minutes ago and, as you see, you are still here."

"Took off? But it had to have its drive chamber replated!"

"Come, come," said Drakvil. "To replate a drive chamber takes days. The ship needs to be completely torn down—that's one reason we Assassins never use ships. To work, my boy. There's your pjanik, and you have the loset in hand." He glanced at the metal plate. "Meanwhile—let me see—I have some questions here. When you were an immature life form did you ever secretly like your primary immediate male ancestor?"

Tom was exchanging glances with Lucy. He winked and whispered in English, "Play along." He handed the loset back to the Master Assassin, bowing.

"Ordinarily," he said, "I'd be happy to assassinate this little fellow here—" He put his hand on the shoulder of the pjanik.

"Oh!" cried the pjanik in sudden accents of joy. "It touched me! Its honor touched me!" It fell at Tom's feet and began kissing the toes of Tom's shoes. "Oh, thank you, your nobleship, your kindness, little uncle."

Drakvil had gone suddenly white again. Now he faded back to his normal color and boomed with laughter.

"All right, you young rascal!" he said. "Caught me fairly that

time. Takes some nerve to risk distracting a Master Assassin long enough to touch a piece of his property and adopt it. Well, you got away with it. Now, all that talk about the Mordaunti spaceship. Eyewash, right? You deliberately got off here to put yourself in a position where I could see you and take you on as an Apprentice, didn't you?"

"Er, yes," said Tom.

"Yes?" cried Lucy.

"Playalong, playalong, we're stranded - here - without - that - ship," muttered Tom between his teeth in English, smiling brightly at Drakvil.

"Well, come along then," said Drakvil, remounting the platform. "Bring your newly adopted nephew-slave along with you. Does the wilf have to come, too?"

"Just try to go without me!" said Lucy.

"Blasted faithful wilfs!" muttered Drakvil, as Tom stepped up on the platform and helped Lucy up behind him. "Sap the backbone out of a being. Wouldn't have one myself for . . . Hang on, here we go, across the galaxy to Pjo."

"PJO?" said Tom. But already the city around them had vanished. The platform was now sitting in the midst of a featureless waste of sand, with what looked like a temple far off on the

horizon. "Well," Tom said, blinking a little, "that's some transportation."

"The only way to go," said Drakvil with satisfaction. "Why travel by slow phase-shifting when this is available? Of course there's always that statistical chance of coming out in the cen-



Drakvil

ter of some sun or other. But death is an Assassin's constant companion, anyway. Let's get down to business."

He pointed at the distant temple-like building.

"Scene of your first assignment. First I'd better brief you." He reached down and touched something on the platform at his feet. A golden light flickered suddenly around Tom, who went down like

a pjanik shot by a loset, in a crumpled heap.

"Tom!" cried Lucy frantically, kneeling by him. He sat up groggily and shook his head. "Who? What? Where—oh, hello, wilf."

"Wilf!" cried Lucy. "Tom, don't you know me?"

"Of course I know you, wilf—I mean, honey. Help me up."

Lucy helped him to his feet. Tom shook his head a few more times.

"Bit of a shock, acquiring all that information at once. I'm all right wi—Lucy. Oh, is that my harness?" He reached out and took the cluster of weapons Drakvil was holding out to him. He put it on, checking its gadgets. "Let's see. Spengs. Losets. Oh, and a gornul. Latest model, I see."

"Naturally," said Drakvil. "The workman is worthy of his tools."

"Thanks." Tom looked off at the building. "Subject in there?"

"Tom!" said Lucy, "what're you going to do?"

Tom ignored her and went on talking to Drakvil. "Large establishment, I take it?"

"A spranjik of the gark class," said Drakvil.

"Probably has a gnruft of jilks for guard?"

"Two gnruths. All porbornik-jilks."

"Tom!" cried Lucy. "You answer me! What're you going to do? What are gnruths?"

"Bodyguard units of fifty jilks apiece," said Tom absently, staring at the building.

"Tom, you aren't thinking of trying to assassinate someone who has a hundred bodyguards?"

"You'll notice," said Drakvil to Tom, "the establishment is laid out for alnrts, both inside and out."

Tom laughed scornfully. "Alnrts!"

"Tom! What are alnrts? Will you pay some attention to me?"

"They're disintegrators," said Tom without looking around. "Don't bother me now, wilf."

Lucy shouted, "I am not, not, not a wilf!"

"Well, I'm off," said Tom. He reached down to do something to the platform, and disappeared.

"Tom!" wailed Lucy.

HE reappeared again, shoving one of the larger gadgets back into his holster on the weapon's harness.

"Well, that was easy enough," he said. Lucy gaped at him.

"Tom, you didn't — " she gasped.

"Not yet," said Tom cheerfully. "I just went in for a reconnoitre. On accelerated time."

"Report what you did, Assistant," Drakvil said.

"Oh, I approached the gate and spenged one of jilks on outer guard there. When the rest turned

to see what had happened, I slipped in. As I expected, I found myself in a mobius maze of corridors. I calculated my way through, spenged the three jilks I found at the inner entrance, and took cover when the alarm sounded and a platoon came up at the double with pobornik guns at the ready."

"Did they suspect an Assassin was inside the gark?" asked Drakvil.

"No sir," answered Tom. "I overheard them guessing that it was a dispossessed simulacrum — a rogue lone. I ducked down a side street of the jilk quarters and found my way blocked by a full-armed tank. Well, of course a monstrosity like that could never be knocked out by a mere speng. I knew that."

"What — what did you do?" Lucy asked.

"Oh, I just stood still in the center of the street the way any ordinary dispossessed, mindless rogue simulacrum might. And when they were close enough, I gave the tank a pung from my class two loset."

Drakvil beamed. "Very good. And then?"

"I took the tank and drove it through the inner defenses as if I was the tank crew coming back off duty. Inside, I abandoned the tank and slipped into the ruler's personal family section of the

gark. I set up a resolving point inside so the platform could be brought in, and came back to get the three of you."

The pjanik squeaked with pleasure.

"Me, too? Oh, little uncle!"

"Yes," said Tom, giving Lucy a strange, meaningful glance that baffled her completely, "particularly you too."

"You wanted me to see you in action. Very good," said Drakvil. He reached down and touched the platform, and they were all suddenly in a curtained alcove, dim-lit from above. "Now what?"

"You can watch through the curtain," said Tom. "Now, I'm going to disguise myself and take on the nartled appearance of an illegal gossip-seller." He reached down and touched the platform. Lucy gave a small, stifled shriek.

"It's still me," creaked the clawed and warty creature now standing before them. "Watch through the curtain."

### III

HE SLIPPED off the platform, parted the curtains and slid through. Lucy, Drakvil and the pjanik hurried to the parting and peered through. They saw a lofty hall with a guard of armed jilks, their eye-stalks stiff at attention. A jilk officer was pacing up and down. Tom, in his gossip-seller's

guise, sidled up to the officer.

"Juicy items," Lucy heard him whine, "rare tidbits from strange worlds —"

The officer backed away distastefully and snapped, "Filthy creature! Keep your nartled claws to yourself."

"But commander! I must go inside the door. A certain female of the ranking family — your freshness understands —"

"Your pass!" snapped the officer, extending a three-fingered hand.

"But she gave me no pass," Tom whimpered. "She simply said to come to this entrance —" He sidled closer. "Your freshness would not want me to compromise the good name of one of the inner gark by mentioning it in public? But if I could talk to you aside —"

"Stand back," said the officer. "Very well." He let Tom lead him away from the guard. To Lucy's horror they approached the alcove, stopping just outside the curtain.

"Now," said the officer in a low, eager voice. Lucy was amazed to see his eyestalks wavering drunkenly. He panted. "I know you're lying. The female Orbash is the only one who could have called you, and she is elsewhere. So tell me! What have you got to sell?"

Tom whispered, "I knew your freshness was an addict, the mo-



*The Pjanik Pjanik*

ment I saw the angle of your eyestalks! It'll cost you."

"I am not an addict," panted the officer. "I like a little gossip like the next being, but I can take it or leave it alone. But price is no object. Quick, what've you got for sale?"

"Bend down, listen—" said Tom. The eyestalks dipped inward. Tom threw a sudden hook to the officer's midsection. The officer collapsed without a sound and Tom shoved him through the curtain at Lucy's feet, meanwhile immediately turning his appearance into a duplicate of the officer's. He marched across to the guard.

"Attention!" he snapped. "Right face! Forward march." They

marched off down the corridor.

"Magnificent discipline these pobornik-jilks have," remarked Drakvil, as Tom, marching behind the guard, stepped back into the alcove. "However, it sometimes works to their disadvantage."

"I assumed so," said Tom, resuming his natural appearance, much to Lucy's relief. "Now, shall we enter the gark-ruler's inner sanctum?"

HE LED them to the undefended door and opened it. They stepped through filmy hanging curtains to find themselves in a pleasant, sunlit room where a fountain played. A pjanik in purple robes turned to look at them. Tom's adopted nephew-slave immediately prostrated himself before his duplicate.

"Rise, inferior," said the one in the purple robe. He helped Tom's pjanik to arise, and the two stood nose to nose, their white beards almost touching, their gentle eyes fastened in friendly fashion on each other. "To what do I owe the honor of this visit?"

"Rejoice, noble sir," said Tom's pjanik. "You are about to be assassinated."

"Hardly a cause for rejoicing, inferior," the other protested mildly.

"It isn't, noble sir?"

"Not for a pjanik pjanik, infe-

rior. Possibly you're confusing my position with your own." Tom's pjanik immediately prostrated himself again. "No, I didn't mean that." He helped Tom's pjanik up again. "I just meant that we who are born to the purple don't consider being murdered quite such an honor as you lower classes."

"Really?"

"In fact," said the pjanik pjanik, turning to Tom, Lucy and Drakvil, "may I ask why I'm being assassinated?"

"Why?" exploded Drakvil. "You ask *why*?"

"A natural question, isn't it?" asked Tom innocently.

"Why, I never heard of such a thing!" fumed Drakvil. "A subject asking why. What galactic nerve! If I hadn't promised you to my assistant here, and an Assassin's word wasn't as good as his bond—" His fingers played angrily with the hilt of a hook-shaped knife attached to his harness.

"I suppose you don't know why either, young Apprentice?" said the pjanik sadly to Tom. "Well, I suppose I'll die not knowing. Farewell, inferior."

The large eyes of Tom's pjanik began to fill with sympathetic tears.

"Go ahead," fussed Drakvil. "I can't. You must."

"No," said Tom.

"No?" said Drakvil, Lucy and the pjanik pjanik all at once.

"No," said Tom calmly. "I cannot, because of my wilf."

"I knew it!" bellowed Drakvil, turning chalk-white and staying that color. "That wilf! I knew it!" He turned on Lucy, who quickly got on the other side of Tom.

Tom faced him and said, "Once I would have gornuled this subject on the spot, without a hesitation. In fact with keen enjoyment. But my wilf has had its effect on me. This is—er—a far, far better thing I do than I have ever done before. The quality of mercy is not strained and no man is an island unto himself. If I should gornul this subject, I should be diminished, even as an island diminishes part of the main. Therefore never send to know for whom the bell tolls, because it's already tolled for me."

"**MADI!**" said Drakvil. "Stark, staring, raving mad. Poor, poor boy." His color came back. His tone became more gentle. "Before I gornul you myself, Apprentice, and put you out of your misery—tell me. Why did you go this far before refusing to act?"

"It was the least I could do for the Master to whom I'd been apprenticed," said Tom. "I suspected your honor had been impugned. I had to actually get face to face with the subject and you at the same time to make sure.

Now I know beyond any doubt."

"Honor?" said Drakvil, suddenly stiffening. "The honor of a Master Assassin impugned? Who would dare?"

"Who indeed," said Tom, nudging Lucy, "but an amateur assassin?"

"Amateur?" Drakvil went chalk-white once more.

"Yes," said Tom. "I wouldn't have had the least suspicion of him, if it hadn't been for my wif." He nudged Lucy again. "It noticed the difference in the way I was acting. Didn't you, wif?"

"Yes, I did," said Lucy.

"It wanted to know what was disturbing me."

"Yes, I did."

"It warned me faithfully that this amateur was out to dispose of me."

"Er—" said Lucy, "yes, I did."

"Its warnings did not register on me properly until you slapped me with that briefing ray just before I went into the gark. In that briefing was the information needed to complete the picture. This amateur arranged for me to be left behind on Bug'raf, just as he hired you through the Assassin's Guild to train me as an Apprentice. And he thoughtfully provided this innocent pjanik pjanik as a subject for me to practice on, at the regular rates."

Drakvil said thoughtfully, his color returning. "What you say

checks with my own knowledge, Apprentice. But nothing of it affects my honor."

"I will explain."

"Go ahead," said Drakvil, taking a long, sinister-looking gadget from his harness. "I have to reset my gornul anyway. Take a couple more moments if you like."

"Thank you," said Tom. "Suppose you understand that what this amateur hoped and planned was that you would gornul me."

"How could he be so sure of that?"

"Because," said Tom, taking a deep breath, "he was prepared to violate your honor by forcing you to take on an Apprentice that he knew would never pass the test. You see, he knew I had a wif."

Drakvil's fingers stopped suddenly on the gornul. He looked up.

"He knew my wif would stick by me."

"Yes, I would," said Lucy.

"And that, faithful as it is to its principles and to me—"

"Yes, I am."

"—it would, wif-like, throw itself before my gornul when I attempted to assassinate the subject, thus creating a scandal that would reflect on you as my master, and cause you to destroy me on the spot."

"Y—" began Lucy; and stopped dead, staring at Tom with eyes almost as big as a pjanik's.

Drakvil had beaten his previous paleness of shade. He was now so white he was nearly transparent.

"You see," said Tom to him, "he didn't care about the pjanik here, whom he had no reason to hire assassinated. He didn't care about the expense you might be put to in buying a practice pjanik for me. He didn't care about the scandal which would blacken your name in the Assassin's Guild. All he was interested was in using you to get rid of me."

**D**RAKVIL was not only nearly transparent, he was swelling like a balloon.

"Pardon me, little uncle," said Tom's pjanik meekly, "but why didn't he just hire the noble Assassin to destroy you in the first place?"

"Well, you see," said Tom in a kindly voice, "he couldn't. For the same reason I couldn't really adopt you. My race hasn't ever subscribed to the Assassin Conventions. In fact—I'm on my way to Cayano right now to discuss the Conventions and other things with the forty-three other dominant races' representatives."

Drakvil had finally found his voice. "Where is he?" he wheezed. "Where is he?"

"The Mordaunti Ambassador who marooned my wif and I and hired you?" said Tom smoothly.

"I imagine he's on Gayahno by now. Very probably—" Tom glanced at his watch—"he's already sitting down with the forty-three representatives in the Omni-Races Building board room."

"Platform!" said Drakvil, touching a spot on his harness. The platform appeared. "On!" he ordered. Tom jumped up on it and pulled Lucy after him. Tom's pjanik started to scramble aboard also, then stopped, confused.

"Stay here, inferior," said the pjanik pjanik. "I'll adopt you."

"Oh, little father," said the pjanik, falling prostrate. Drakvil touched the platform. The room winked out around them and they winked in again in a long, hall-like chamber, with a semi-circle



*The Jilk Officer*

of seats filled with a rainbow diversity of different beings. The Mordaunti Ambassador was standing in the open space before these seats, addressing the rest of the representatives.

"—our responsibility to the former Jaktal members, and those races formerly under their dominion—" he was saying. He broke off abruptly as he saw the platform with its occupants.

"Now!" boomed Drakvil. Tom caught the Assassin's hand as it was closing on the gornul.

"Just a minute," said Tom. "He's mine."

"Yours?" Drakvil turned on Tom.

"Though only an Apprentice, I believe I have rights under the Guild," said Tom.

"Yes," Drakvil admitted thickly.

"Then I believe I have the right of first offense from this being, and so may challenge him to a duel before you yourself take action?"

Drakvil glowered.

"I'm going to have to do some work on that briefing machine," he muttered. But he let go of the gornul. "Go ahead, then. I'll watch."

The Mordaunti had buckled slightly at the knees on seeing Drakvil. But on hearing this, he straightened up again and his hands spread inward toward his

own weapon harness. He smiled at Tom.

"Though only an Apprentice," said Tom to Drakvil, "would you say I might prevail in a duel with this being?"

Drakvil snorted.

"Only!" he said. "Only an Apprentice! You've been briefed, haven't you? Naturally only another Guild member could hope to stand a chance with you, Apprentice or not."

THE Mordaunti's knees began to give again. He tried to smile but his satanic grimace was a little loose at the corners.

"I just wondered," said Tom. "I wouldn't want the impression to get about the galaxy that I was trying to hide from the honorable Mordaunti representative."

He got down off the platform and walked across to a vacant chair he had spotted in the lowest tier of seats. It was a little large for him, being built to hold Jak-tals, but he seated himself in it.

"Let me see," he said thoughtfully. "I will have to arrange for my wifl to be restrained so that it cannot prevent—"

"Hold!" cried the Mordaunti Ambassador in the lingua franca.

Tom looked up, surprised.

"No one could be more eager for a duel with the being from Earth than I," said the Mordaunti. His knees were quite

straight again. "But there is a higher duty. The obligations of a Member of this meeting."

"What?" said Tom. "I don't understand. You have to fight me."

"Alas," said the Mordaunti. "Forgive me."

"Forgive you? I insist you fight me. I insist—"

"Sadly, I must refuse. Sir, you have inadvertently seated yourself in the Jaktal chair, as a Member of this meeting."

"What?" cried Tom, looking about him. "What'd I do? You mean, just by sitting down here for a moment, I—"

"You invested yourself with diplomatic immunity," said the Mordaunti. "Ambassadors may not duel with each other. That is a basic law of interracial politics. Otherwise our meetings would become disasters."

"But I just sat down for a minute!"

"I'm sorry. The rule is strict."

"Curses!" said Tom.

"We all sympathize."

"Why am I so absentminded?"

"We all understand, I'm sure. It could happen to any newcomer. Unfortunately ignorance of the rule is no excuse."

"My courage," said Tom, "will be called in question. The courage of the whole human race will probably be called in question."

"Not at all," said the Mor-

daunti smoothly, "I, myself, will be honored to introduce a resolution of confidence in your courage and that of every member of your race."

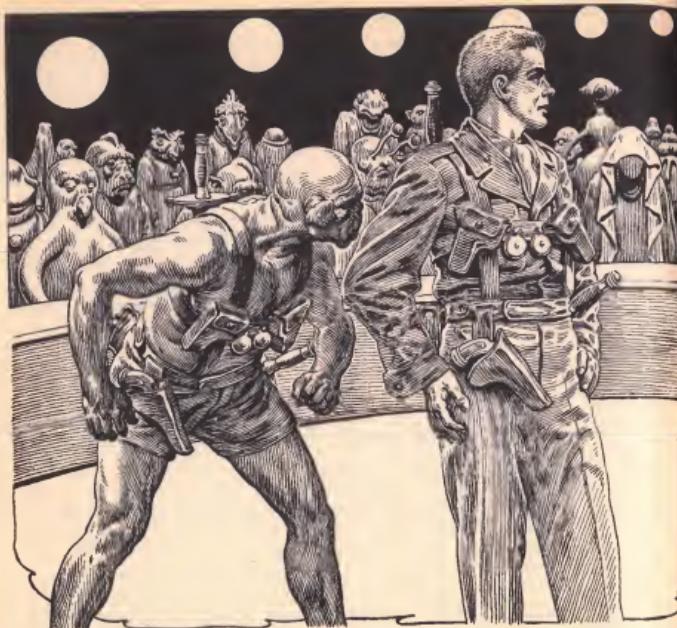
"Well . . ." said Tom. But the Mordaunti had already turned to speak to the filled seats of the semi-circle about Tom. And three Earth minutes later the vote was unanimous in favor of Tom's and human courage, even Drakvil being read into the minutes unofficially as being in favor.

#### IV

"TELL ME, really," said Lucy. That night, as they were preparing to retire on a Mordaunti bed that was like a golden cloud twelve feet around, "did that briefing really make you so dangerous? In just a second, like that?"

Tom climbed onto the bed. Lucy was still tying the top of her filmy blue nightgown. He bounded experimentally.

"Some bed," he said. "Of course it didn't. I know all I need to know, but it'd take years of exercising to make my muscles respond as they need to for effective use of the knowledge. Drakvil, of course, wasn't going to admit I wasn't, though. His honor as an Assassin was at stake. That is why I think he was secretly pleased I didn't have to duel the



Mordaunti, after all. — Are you going to put the lights out?"

"In a minute," said Lucy. She stood by the bed. "I want you to tell me something first."

"What?"

"I want to know exactly what a wilf is. And you tell me the truth."

"Oh."

"Yes, oh."

"Well," said Tom, slowly, "they

look a lot like women. At least an alien might think they did. But they're really a totally different race, monosexual. It's just that they go around becoming deeply attached to beings of other races. Once they make friends, their faithfulness is proverbial in the galaxy."

"But why?"

"Why?"

"Why," said Lucy, "do they be-



come attached? What do they want to make friends for? What's in it for them?" She looked narrowly at Tom. "They look so much like us and they go around attaching themselves. I want to know why!"

"Oh," said Tom. "I see. I see. Well, it's not what you might think at all."

"It isn't?"

"No," said Tom. "Different race, and all that. It's just that wilfs have this strong moral sense. They have very high principles and their greatest joy is in converting some other being to these

same principles. Naturally, there's not much opportunity for them to improve other wilfs, these being as good as they can get already. So they try to get close to beings of other races, in a strictly intellectual way. That's all."

"Oh," said Lucy, "that's all right, then."

She put out the lights and bounced into bed.

"I've got plenty of low principles" she said. "You like me that way, don't you? You'd better say yes."

"Yes," said Tom.

— GORDON R. DICKSON

# THE SELLERS OF THE DREAM

By JOHN JAKES Illustrated by R. D. FRANCIS

*He was the master spy. He  
could be anybody at all —  
until they made him nobody!*

HIS gaudy wristwatch showed thirty minutes past nine, six July. It was time. From here on it was do the job right or be ruined. If not physically, then professionally.

Finian Smith dug for tools in the pouches of his imitation stomach. The left eye of the watch's moon face gave a ludicrous wink to complete the time signal. Finian hated the watch. He'd gotten used to the confines of the camouflaged polymer leech clinging to the keel of the hydrofoiler. He'd gotten used to performing necessary bodily functions in intimate contact with the leech's servomechanisms for thirty-six hours. But the watch — never.

It was effete, like his clothes. Effeteness was big this year. Next year it would be hand-loomed woolens. But he wasn't being paid to inherit the soul of the man he was impersonating, after all. He applied the first of his meson torches to the thick hull. His long, pleasantly ugly face began to bead with perspiration.

He had precisely four minutes to cut through.

His face was half shadowed by the hull as he worked, half washed in flickering sunlight through anemone and brain coral. He defused a large U-shaped section and replaced the torch with a pistol unit fitted with a round cup at the muzzle. This cup he

applied to the hull. A blue whine of power — he forced the hull inward far enough to accommodate entry to the fuel baffle chamber.

He set a small black box to blow the polymer leech off the hull in fifty seconds, glad that he'd spent a full twenty nights under the hypnolearner. The penetration plan was drummed so deeply into his skull he could operate like an automaton.

With a last tool he re-sealed the hull, touched a stud and watched the tool collapse to gritty pumice. Right now the leech should be quietly disintegrating, without so much as a murmur to disturb the TTIC spy radar. It took a lot of money to arrange this penetration, Finian thought. Knowing how much made him nervous.

Finian hurried up a lonely companionway. Before stepping to the yacht's deck he dusted his pleatless puce satin pantaloons and also made sure the precision camera, a combined effort of G/S dental technicians and optics men, was in place where his right front incisor had once been. The blade shutter's release was a knob on the tooth's inner surface, triggered by tongue pressure. Fake enamel would fly aside a micro-instant and TTIC secrets would be recorded for posterity, not to mention G/S market analysts.

**O**N DECK, Finian adjusted his identification badge.

Beneath his picture it said *Woodrow Howslip, Missoula, Mont., Upper North American Distributorship*. Finian hoped Woodrow Howslip was still lost in the Mojave Desert. If so, the only thing Finian had to worry over was his old enemy.

Every few yards along the deck armed TTIC security men stood at attention; TTIC seemed to have innumerable armed guards. So did G/S for that matter. Finian often wondered why. No one got angry any more, why have armed guards?

"Hi, there, I'm Woody Howslip."

"Morning, sir." The guard stared into the Pacific's cobalt swell.

"Say, fella. Last year when I came to see the new models innerduced, I ran into hell of a swell person — Spool or Stool. Sure like to buy him a drink. Is he on board?"

"I don't believe so, sir."

"Oh, too bad. Maybe he'll show up. They always have the top dogs at these distributor shows. I hear Stool's a top dog. Chief of company spies or something."

The guard concealed irritation. "Spool, sir. Chief of industrial investigation."

Finian giggled the man's ribs. "Keeps those Goods/Services

jerks hopping, huh? Well, sorry Spool isn't around. Maybe later. See you in the *videofunnies* —"

*Overdoing it*, Finian thought as he hurried along. Still, it was reassuring to know the intelligence was correct: Spool was in Bombay. Finian had run up against him most recently when TTIC tried to steal G/S designs for the mid-year hairdo changes during the 2004-5 season.

Finian joined a crowd of distributors hurrying into an auditorium beneath a banner reading:

#### WELCOME

Things to Come Incorporated

World Distributors

*"Last Year's Woman Is This Year's Consumer"*

As he took a seat in the shadowy hall he listened to voices all around:

"It's rumored she's of the Grecian mode," said the European Common Market distributor.

"What? Copy the tripe G/S peddled two years ago?" That was the White/Blue Nile man.

The Chinese distributor protested: "Last year, too severe. Humble per cent of market drop severely. Five thousand years in fields, China women do not desire box haircut, woolen socks."

"Hope it's a real smasher this time," said the British Empire distributor, a seedy fellow wear-

ing cologne. One rundown warehouse in Jamaica comprised the Empire any more. TTIC or G/S could buy or sell the Empire a thousand times. Or any other country. Finian was sweating. No wonder the stakes were so high.

**O**N AN austere platform up front sat three men. One was a florid old gentleman with dewlaps and blue, vaguely crossed eyes. Another — a spindly type with a flower at each cuff — rose and was introduced by a loud-speaker as Corporate Director of Sales Northcote Hastings.

"Thank you, thank you. I won't waste time, gentlemen. You've traveled thousands of miles in secrecy and we appreciate it. We trust you also appreciate why we must maintain the mobility of our personality design center. One never knows when the — ah — competition might infiltrate a permanent site. They can't match our sales in new personalities, so they try to outfight us with punches below the belt."

He fingered his, of ermine, to illustrate. Finian joined the laughter, but meant his.

"After luncheon, gentlemen, you're scheduled for individual sessions with our designers, psychiatrists, plastic surgeons and sociability coordinators, not to mention apparel teams and accessory experts."

Hastings glanced at the old gentleman with the vaguely crossed eyes.

"Before we proceed, however, I should like to introduce TTIC's beloved chairman of the board, Mr. Alvh Loudermilk. Stand up, Mr. Loudermilk." The sales manager was plainly annoyed by having to make the introduction. The old dodderer took a step toward the podium. Hastings let a tolerant smile be seen by the distributors but did not relinquish the mike.

"You can talk with Mr. Loudermilk personally later, gentlemen."

The florid old gentleman sat down again, as though no one appreciated him. Smoothly Hastings continued, "Let me get on by bringing forward the great design chief of Things to Come Incorporated —" He flung out a hand. "Dr. Gerhard Krumm."

The famed Krumm, an obese toad with the inevitable disarrayed look of the corporate intellectual, walked to the podium. His apricot slippers, pantaloons and bolero jacket seemed to have come from a dustbin. Behind Krumm stage blowers whirred. They were readying curtains and screens.

Finian slid his tongue near his tooth.

"Gentlemen," Krumm said, "first the bad news."

At the unhappy grumble he

held up his hand. "Next year — I promise! — TTIC will absolutely and without qualification be ready to introduce the concept of the obsolescent male personality, exactly as we did in the female market ten years ago. I can only emphasize again the tremendous physical problems confronting us, and point to the lag in male fashion obsolescence that was not finally overcome until the late twentieth century, by the sheer weight of promotion. Men, unlike women, accept new decorative concepts slowly. TTIC has a lucrative share of the semi-annual male changeover, but we are years behind the female personality market. Next year we catch up."

"May we see what you have for the girls, old chap?" someone asked. "Then we'll decide whether we're happy."

"Very well." Krumm began to read from a promotion script: "This year we steal a leaf from yesterday's — uh — scented album." The lights dimmed artfully. Perfume sprayed the chamber from hidden ducts. A stereo orchestra swelled. The curtains parted. Finian's upper lip was rolled back as far as possible.

A nostalgic solido view of New York when it was once populated by people flashed on the screen. Violins throbbed thrillingly.

"Remember the sweet, charm-

ing girl of yesteryear? We capture her for you — warm, uncomplicated, revelling in — uh, let's see — sunlight and outdoor sports."

A series of solido slides, illustrating Krumm's points with shots of nuclear ski lifts or the Seine, merged one into another.

"Gone is the exaggerated I.Q. of this year, gone the modish clothing. A return to softness. A simple mind, clinging, sweet. The stuff of everyman's dreams. Gentlemen, I give you —"

Hidden kettledrums swelled. The name flashed on the screen: DREAM DESIRE.

"Dream Desire! New Woman of the 2007-08 market year!"

OVER enthusiastic applause Krumm continued: "At our thirty thousand personality alteration centers over the world, every woman will be able to change her body and mind, by means of surgical and psychological techniques of which TTIC is the acknowledged master, to become Dream Desire. Backed by the most intensive promotion program in history, we promise that more women will become Dream Desire than have ever become one of our previous models. Because, gentlemen, no woman could possibly resist becoming this."

Sitting forward with tooth ready to shoot, Finian was un-

prepared for the shock that awaited him.

Onto the screen slid the naked figure of a girl. Only her back was exposed. Nothing could be seen of her face. Her hair was yellow, that was all. The flesh itself was tanned, in sharp contrast to the pale library look currently being merchandised. The proportions of the girl's buttocks had been surgically worked out to be almost the apex of voluptuousness. But what shook Finian to the soles of his mink slippers was a star-shaped raspberry mark on the new model's left rear.

*That isn't Dream Desire, he thought wildly. That's — that's —*

"We begin with the, uh, rear elevation," said Krumm. "In that colorful mark you see TTIC marketing genius. That mark will stamp the woman who buys this new personality as a genuine Dream Desire, not a shoddy G/S counterfeit. To be frank, adoption of this unique — ah — signature, was not planned. When we sought a girl for our prototype, we discovered the girl we chose was blessed with such a mark. It inspired serendipity. But this is just the beginning. See what we have done with the face."

Only just in time did Finian remember to trigger his tooth and take a shot of the rear elevation before the front view flashed on. The girl, naked and coy on a di-

van, had pink cheeks, red lips, china blue doll eyes. Pretty, in a cuddlesome, vapid way.

Quickly he exposed two more frames. He was falling apart, muffing the job. Krumm's voice became a drone detailing the surgical and analytical procedures necessary for a woman to buy the appearance and personality of Dream Desire. Finian didn't hear a thing about price schedules or what lower-priced models were contemplated. He photographed each slide mechanically, thinking of the raspberry mark.

*It's not Dream Desire, he said to himself. My God — it's Dolly Novotny.*

Not the face, not the breasts. But *there*, far down in the eyes. They weren't even brown any more. But colored contacts could change eyes so easily.

Never had he been more profoundly shocked. His own sweet lost Dolly!

A heavy hand seized his shoulder.

"Here he is!"

Finian was dragged from his seat. A searing light flashed in his face.

"Well, well. Finian Smith. When you took hold of that rail coming into the hall, you should have recalled we have sweat prints for all you G/S boys. Give me the camera and come along quietly," finished Sprool.

## II

"I THOUGHT you were in Bombay," said Finian. "I got bum information."

Sprool smiled somewhere in the depths of his almost colorless eyes. His pale, saturnine face, however, was devoid of humor.

"Never trust Lyman Pushkyn for information, Fin. Since when is an advertising man qualified to supervise an industrial investigation program?"

"You're right. I tried to get them to give me the post once."

"Did you? I didn't realize that. When?"

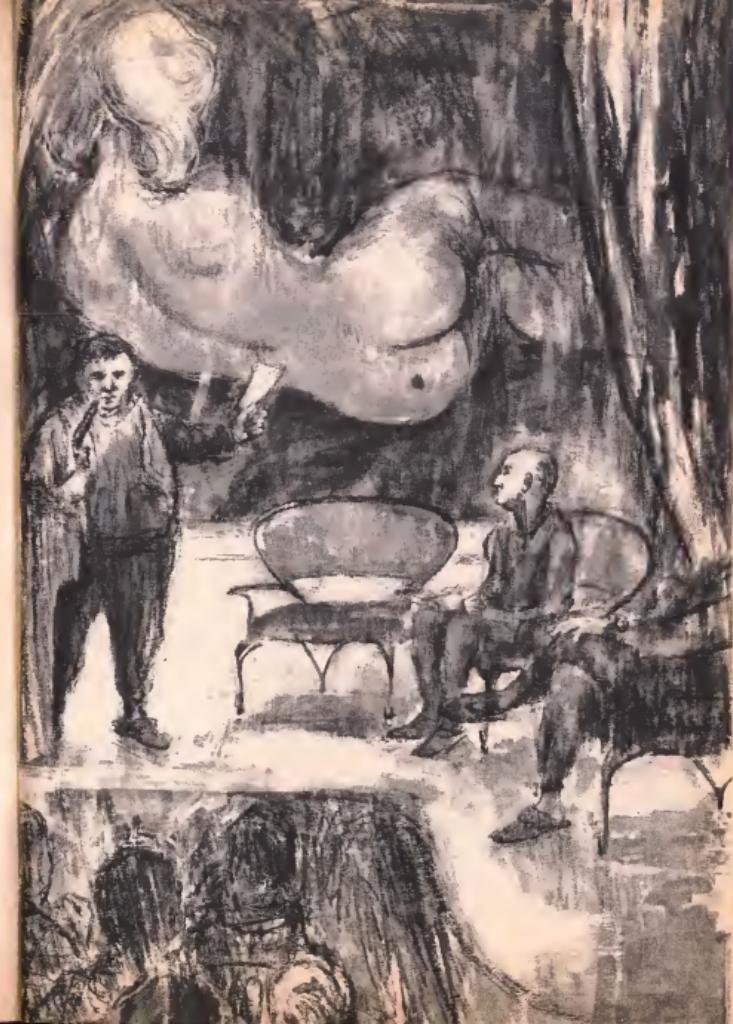
"Right after I was cashiered by the DOCs and finished my first case for G/S." He couldn't repress a smile. "The time I stole your men's changeover layouts by disguising myself as part of the lavatory wall. When you still had the design center on land, out in California."

Sprool chuckled flatly. "We've been friendly enemies quite a while, haven't we, Fin?"

"You never put one over on me like this, though."

"Shame you forgot sweat prints."

"My own damned fault." Finian thrust out his jaw. "I'll take what's coming. I was counting on this play to cut through all that stupid bureaucracy at the top of G/S and maybe net me the chief investi-



gator's post." Finian scowled out the office porthole to the heaving blue Pacific. Sprool smoothed thinning hair.

"Might as well give me the camera."

Finian made a show of dipping into his artificial paunch. He come up with a palm-sized micro 35mm and snapped open the case release. He pulled the leader on the cassette all the way out, exposing the film. Chuckling, Sprool picked up the cylinder.

"Very nice, Finian. May I now have the real camera?"

"Ah, you slick bastard," grumbled Finian. This time he took a piece of equipment from beneath his singlet. Sprool dropped it down a hissing disposal tube.

"You look positively vengeful, Fin."

"I could smash a few heads right now. That damn G/S Comptroller Central makes investigators do their own penetration work-ups. They're nickle-nurses besides. I *thought* of sweat prints. They said the corrective was too expensive. I wasn't positive you had the index on file, so —"

"Fin, please don't bristle. Remember we have telephotos on you at this very moment. In that bust of Loewy, for instance. His collar button is watching you. Don't fight me and you won't get hurt. TTIC is a business operation just like G/S. Firm but

paternalistic. When we dispose of an irritant, we do it with flexibility and permanence, but no physical pain."

"That's nice to know, considering you'll probably ruin my career."

"Were you ever really cut out for business, Fin?"

"If I wasn't what the hell was I cut out for? Not the DOCs."

**S**PROOL raised a chiding finger.

"See? That burst of temper is all too typical of you. People simply don't rock the boat these days, Fin. Why, if either G/S or TTIC went for more than a 50% share of the renewal personality market — plus or minus the 2% gain or lose as a result of spying, design leaks and so forth — the U.N. would have its economic cycle theorists down on us instantly."

"God, Sprool, I try and try. I guess I just wasn't meant to be a twenty-first century man. I never had the proper education, like those reading primers written by the market boys from — where was it? — BBDO? I went to private school. On my Pop's knee."

"Then your attitudes are understandable. How can you expect to be anything but yourself when your father was a Galbraith? Perhaps the last of that persuasion allowed to teach eco-

nomics in public universities? Your father was dead set against the kind of obsolescence practiced by the corporations we both represent. The two largest corporations in the world!"

"Pop wanted consumer money spent on libraries, schools, highways, pretty green roadside picnic parks."

"None of which contributes very much to keeping the world plant running at top output. None of which provides the millions of jobs needed to give black and yellow and white alike ample opportunity for the good life. If you'd only understand yourself, how you fit the scheme of things."

"I don't. That's the trouble. What the hell am I supposed to do, join the prisoners in New York? I keep quiet about what I think. I did it well enough to be an operative for the Department of Obsolescence Control. I was doing all right until —"

Memory clouded his brow. He wriggled deep down in the foam of his chair. He wished he were free of this hellish interview, free to think on the problem of Dream Desire who was not Dream Desire at all but Dolly.

"Until what? I never really knew."

"Until I rocked the boat, God damn it! I was chief of the Indiana bureau. I tried to stop a car-smash rally a week before the

new models came out. The district supervisor was there, making a speech. I thought I saw a kid inside one of the levacars the crowd was pushing into the Wabash River. I went to see, hold back the crowd. The district supervisor told me to stop, I hit him. *I hit him.* You know what happens when you hit an executive."

Finian pinched the bridge of his nose to shut out the ugly memory. At length he added, "In case you never heard the rest of the story either, a wreck crew examined the levacar afterward. There was no kid inside. Only a big mechanical doll somebody had forgotten to take out before the smash."

"Very touching," said Sprool emptily.

"Come on, Sprool. Let's get this over."

"Of course. But let me make one more point. Do you know why I'm here, not in Bombay?"

"The mental riot at the TTIC nylon plant was a fake."

"Not at all. The rioters were manning the controls of the motorized strikegangs day and night, from their homes. The moment TTIC cabled agreement to their demand for two extra holidays, before and after Nehru's birthday, they gave up all their other requests — for free anti-cigarette immunization and the

like. People are soft, Fin. They cooperate. It must be so, or the plant would stop functioning. How many billions do G/S and TTIC employ? Put those people out of work — disaster! Hunger, pestilence, *real* rioting. The people also have another role to fill, as consumers. If they're unhappy, they respond less adequately to advertising. The plant slows down. Why, until TTIC conceived the idea of introducing new female personalities every year, not just new clothes but complete new mental patterns, the world was headed for ruin. We ran out of new gadgets long ago."

"DON'T kid me," Finian said cynically. "Personality obsolescence was thought up by Old Man Pharaoh of G/S. His granddad told him a story about the Kennedy lady's mushroom hair changing the style overnight and it started him thinking."

"He had considerable help from Alvah Loudermilk."

"Who cares? All I say is, it's a hell of a shame the Triple Play War didn't end in something besides a stalemate. We wouldn't have had everybody palsy-walsy, black and white and yellow. And this damned population problem — the first rockets rusting on the moon and nobody interested in following them in person. Every-

body's a consumer and a worker and — and damn it, soft as jello. And it's a miserable mess from top to bottom."

Sprool was genuinely shocked. "Fin, are you seriously advocating periodic wars?"

Finian shielded his eyes from the sun falling through the port. "Oh, no. I can't think of anything else, that's all. Fatness or fighting, fighting or fatness. In my book they're both lousy. I wish there were a third way. I can't think of one. Maybe if I were smart like you —" Finian stopped, bitterly.

Sprool dialed a magenta visor-phone. "Really, Fin, this is becoming pointless temperament." Into the phone he said, "We're ready, Doctor." To Finian again: "Please don't try to reform our delicately balanced world, my friend. At least not until we scrub your mind clean of what you saw in the auditorium."

A shiver crawled on Finian's spine.

"Scrub — ?"

Too late. Pneumatic doors slid aside. Two unsavory specimens in white smocks bordered with lace wheeled a rubber-tired mechanism into the room. Before Finian could move they adjusted several wing nuts and lowered a bowl device over his head. He tried to stand up, cursing. He was quickly but painlessly pinioned by sleek tubular metal arms

clasping him from the back of the chair.

"The worst damage you did was on film," Sprool said, striding back and forth, dry-washing his hands. "I naturally assume that in your heightened nervous state, what you saw with your eyes didn't make much of an impression. But we'll be sure. Give him a mild jolt to start, boys."

Several sinister cathode tubes began to hiss at various points on the machine. Finian felt a tingle on his scalp, similar to a healthful massage. He closed his eyes and tried to remember the rear elevation of Dream Desire.

He panicked.

Almost as though there were a mental vacuum cleaner in his head, certain synapses were blocked, certain memory receptors temporarily sucked dry. The technique was a portion of that employed in changing the female consumer's intelligence quotient from year to year to conform to the new personality design she purchased. It made Finian fume to think of them tampering with his skull. He was no rotten Metropolis wife merchandised into adopting the latest fashion trend. He writhed ferociously. Sprool looked on with disapproval.

Try as he might, Finian could not remember what — *good lord!* He'd forgotten the name!

What did she look like? *What?*

He had a blurry recollection of colors on a screen, little else. The laboratory cretins unhooded him. The chair relaxed. Sprool assisted him to his feet.

"Feeling better? Free of unpleasant memories?"

"You've no business tampering —"

*Dolly Novotny had a raspberry mark.*

*So did Dream Desire.*

"Yeah. Yeah, I'm okay."

IT TOOK all Finian's strength to keep from revealing that the mental dike had just burst.

He wasn't really surprised. Dolly Novotny had once meant far more to him than assignment could. She would again, when he learned how and why she —

He laughed inwardly. Poor Sprool. He'd stolen a march. Two. Finian still had the tooth camera. And how could Sprool know Finian wanted to — *must* — remember Dolly Novotny, because she was the only creature he ever really loved?

Dolly was the girl to whom he'd been engaged, before her parents broke it off after he was cashiered from the DOCS. An ex-DOC who became an industrial investigator was little more than a lowlife spy in their estimations. Finian had been away so much, on assignment. Dolly had tried to resist her parents, but they held the cash-

box for a modeling career. She tried; she loved him. But one day when he came back to Bala Cynwyd she was gone. The whole family had moved.

Finian received one final letter. He thought from the words, or rather what was between them, really, that she still loved him. The words were obviously parentally ghosted.

Blinking at Sprool now, scratching his scalp to relieve the prickle, Finian realized anew the rather disheartening truth. He was a maverick. Pop had made him so, against his mother's shrill protests. So be it. Especially since someone — the system, maybe, he didn't know, cared less because a man couldn't really fight a system, not an ordinary man anyway — had corrupted the flesh he loved so well.

Finian was vaguely aware of Sprool, bland, pointing.

"Up that stairway, Fin. Directly to the vertijet takeoff stage. Spare you the embarrassment of going on deck." He extended his hand. "Luck, Fin. I hope the sacking isn't too bad."

Finian slipped the hand aside. He grinned. If you had to be a loony, why not enjoy it?

"Thanks for nothing, pal."

He marched defiantly up the stairs into sunlight.

Who had Sprool been kidding about paternalism? Three hours

later the vertijet hovered six inches from Lyman Pushkyn's green front door, the lawn of Panpublix on the outskirts of the Eastern metropolis. Finian was rudely pushed out. The vertijet climbed a white column of vapor into the sky.

Finian picked fresh-cut grass from his pantaloons. Oh, that kind, gentle Sprool. On his instructions the vertijet pilot had beamed an anonymous message on the Panpublix band, announcing that Finian Smith was being returned to continental U.S. by a TTIC skycraft. Still, Finian had one ace to stave off financial disaster.

Five minutes later he lost it.

A squad of G/S industrial guards boiled onto the lawn and hustled Finian to a cold tile room in the personnel wing. There, he discovered two astonishing things. One, the corporation was not quite so paternalistic as it masked itself to appear. The policeman roughed him as they stripped him. Two, the vast G/S industrial police force was not the harmless, aimless body it looked to be from outside. Apparently the guards were paid so well because they had to move savagely if a bubble boiled up the bland surface of the world stew.

In fact, their professionalism with the see-rays in the personnel lab relieved him, howling and

kicking and pummeling, of the precious tooth-camera, just before he was hustled to Pushkyn's floor.

### III

PANPUBLIX was the wholly-owned internal advertising agency for G/S. The building loomed forty stories. Within its curtainwalls quite a few thousand communicators devoted themselves to the task of planning and executing campaigns to move the bodies, as the expression went. The fortieth, or solarium, floor belonged the agency's executive officer, Pushkyn, into whose presence Finian was unceremoniously thrust.

"You miserable creep," Lyman said, as he shooed away his masseuse and beetled his thick Ukrainian brows. "You bumbler, you! We heard all about your incredible performance from Sprool's agents. You're fired. Blackballed. Eradicated. Ka-poosh."

Finian had a hard light in his eyes. He sat down, tilted his feet to the chaise footrest and dialed the arm for a B-complex cocktail. "Lyman, those goonies of yours messed me up. I never knew they were more than window dressing. I didn't know they were supposed to fight."

Pudgy Pushkyn snapped the elastic of his old rose knicker-

bockers. His stomach, lumpy and white as the rest of him, hung out unglamorously.

"Rock the boat some more, creepnik. You'll find out how they can fight."

"Oh shut up. I delivered your pictures. Even if your men did take them by force."

Pushkyn turned his back. "Peddle it another place, jerk. You're through."

"You can't talk to me that way. If you hadn't chintzed about a lousy sweat-print job — "

Pushkyn squinted around. "So that's how. That Sprool, he's a regular fiend."

"Damn it, Lyman — "

Extending a trembling sausage finger Pushkyn breathed, "You we ought to have psyched, deep and permanent. What a fool I was to string along with you for years! A stumblebum private cop dignifying himself by calling himself an industrial investigator. Come in here storming, cursing — no wonder the DOCs kicked you out!"

Momentarily bewildered, Finian countered, "Lyman, your own guards — "

"Quiet! We'll get a nice fat rap in the public image when the investigator trade journals pick up the story of how G/S flopped."

Glowering, Finian stalked him. "Regardless of that, I delivered. I want my fee."

"I'll be damned if I — "

Conflict was temporarily fore stalled by the arrival of a thin assistant art director, carrying a square item masked in gray silk. Finian stared moodily at the G/S model announcement layouts in the wall display racks. The trade name of the new G/S woman and her figure were greeked; but from the woodcut and steel-engraving technique of the gatefold and bleed comps, Finian suspected G/S was going to market a bit of nostalgia even older than the kind chosen by TTIC. Bustless, mandolins and stereopticons by gaslight? Finian had a prepossessing urge to throw up.

"Want to see this, chief?" said the assistant art director.

He whipped off the silk, revealing an oil painting in a platinum frame.

"What the rinkydink hell is that?" Pushkyn cried.

The art director blanched. "Why, chief, it's R. R. Pharaoh III!"

"Of course, of course, jerkola. You think I don't know? I haven't seen the old smeller in three years maybe, but think I don't know the chairman of my own bread and butter? Why the fancy-fancy oil treatment? You do it?"

"Spare time, only, chief," trem bled the art director. "Got a memo. Salinghams — you know, the audiotonal effects veep —

memoized Pharaoh. Wanted a personal portrait of his leader. Pharaoh memoized me, okaying having his picture done. I patched together this little work from the descriptive PR biog. There aren't any good portraits extant."

"Why bring it to me?"

"But chief! You memoized me when I memoized you that — "

"I did? Oh, yeah. Well, I'm busy. Take it to Salinghams."

THE ART director veiled his creation and disappeared down the tube. Pushkyn was about to speak to Finian when he noted the gray sweat patina on Finian's face. He demanded to know whether Finian was ill.

"Nothing, nothing's wrong," said Finian, shivering, wildly curious.

The image in the portrait burned into Finian's skull. It was that of a florid old gentleman with dewlaps and blue, vaguely crossed eyes.

Tightening his nerves, Finian said, "Pushkyn, let me lay it out. I got to have the fee. I need it to find the prototype of the TTIC girl. I used to know her."

A visorphone glowed. Pushkyn slapped the command button. A pale man danced up and down on the screen.

"Chief, chief, it's a breakthrough, a breakthrough! We turned up the TTIC pilot plant

just an hour ago. Molecular triangulation. My God, sir, it's a miracle of deception. Manhattan! The prison! An old rundown distillery company building in the worst stews of — " He consulted a paper. "Parkave, that's the place."

Listening transfixed, Pushkyn started, slid his gaze to Finian and snarled at the screen, "Oh, boy, is *your* fat in the fire. Call me back." He shut off and squinted at Finian, whose mind churned. "You were talking?"

Finian swallowed hard. "Pushkyn, I must find out what's happened to the girl they made into the TTIC prototype. If they've changed her they've done wrong. She was sweet and desirable. They've made her all soft and disgusting. Like marshmallow."

"The new TTIC broad? You were hot for her once, that it?"

"That's it. I was only holding back the camera so you'd pay me. Give me a chance!"

"Think we run a sniveling charity?" Pushkyn's sweeping gesture encompassed the heavens and the pulsing, overpopulated smog banks beneath. "We gotta keep the plant running! Create demand every minute! Off with the old woman! On with the new! The old woman, she smells, she's out of date! We got a crusade here at Panpublix! We got a holy mission! You want the plant wheels

to stop like they put sand in them? While we take care of your personal problems? Don't be a jerkola. Like to argue about the fee? I'll call up the guards again."

Something akin to a cool rush of air swept Finian's brain.

"Then I'll find her without the fee, Lyman."

"Hah-hah, sure. Big independent operator, big millionaire. Go get psyched and lose those hostile tendencies. Don't rock the world, she don't rock so good. Everybody's happy, you be happy. Go grub and be happy."

"I'm not happy. All of a sudden I'm not happy, if people like you made the only girl I ever fell in love with obsolete."

"Get out, chummo. I don't like you any more. You're dangerous."

Finian Smith nodded crisply. "I could very well be." And left.

AS FINIAN left the Panpublix building he heard a menacing hiss. He tried to dodge the rainbow spray. Too late.

His clothing was soon soaked with a noxious admixture of water, special nitrates and phosphorous compounds shot into the air by the underground sprinkler system.

At the levacar station he finally controlled his anger. How petty they could be, to order the lawns sprinkled just then.

Waiting passengers moved away and made rude remarks about his smell. Finian found himself sole occupant of the front car on the ride down the Philadelphia spur.

The enforced loneliness gave him a chance to organize his muddled thoughts and decide what course of action he had to pursue concerning Dolly Novotny.

Two facts he possessed. What they meant, he didn't know.

A likely place to find her was the TTIC pilot plant on Manhattan, the prison island. Still, he was certain to have a rough time getting onto the island and into the plant after that. With few resources at his disposal it might be better to pursue the other thread a bit.

Its significance left him even more muddled. Alvah Loudermilk, TTIC chairman, had appeared at the dealer presentation, somewhat to the annoyance of his inferiors. And R. R. Pharoh, top G/S executive, hadn't been acting quite sensibly either when he permitted an oil portrait of himself to be painted. Finian had never seen a public photo of either man. Both executives were practically legendary.

Then why in the name of Galbraith did both look so much like each other?

When Finian thought on it, one

cold, unpleasant word gnawed his head. *Conspiracy.*

A moment later his professional memory dredged up a source for proving or disproving his odd theory. What he intended to do with evidence, if any existed, he couldn't say. But he had a vague desire to be armed with a little more certainty before he sought Dolly.

An achingly musical name. *Dolly, Dolly* —

He remembered her so well, from summer evenings on the back porch before Bala Cynwyd, like the other suburbs, was swallowed in the fester of the metropolis.

Her dark hair. Her gentle eyes. Her animated mouth. And the raspberry mark, one night during an electrical storm.

She'd tentatively shared Finian's inherited ideas about their constantly obsolete world, ideas long suppressed in him and now flooding back under the double stimulus of Sprool's lecture and Pushkyn's vindictive parsimony. Dolly hadn't exactly been sympathetic. The philosophy of enduring worth was too daring even then. (Today it was sheer lunacy.) But neither had she been as adamant as most citizens. As her parents, for example. They replaced their furniture monthly with the latest G/S fiberboard laminate imitation Finnish mod-

ern modes. Good consumers, both.

Then came his dismissal from the DOCs, the enforced break-up —

The levacar slowed for Bala Cynwyd. In the abstract, remodeling a woman's mind to make her the pattern to which nearly all other women in the world could conform was acceptable to Finian. When it came to the specific of changing Dolly to the marshmallow-trumpery creature looming on the screen behind Krumm, that was too much.

**A**S HE stepped off at Bala Cynwyd, it began to rain. He hurried along beneath warped building fronts of chartreuse and electric blue extruded plastic. From a doorway a hapless bum in last year's pseudo-cotton sport clothes begged for three dollars for a tube of model cement to sniff. Finian shuddered and walked faster. He stopped at Abe Kane's Autosuiter, the last shop left open on the block, selected a few new clothes from the plastic catalogue sheets fastened to the walls, and fed his universal credit card into the slot after punching out his measurements.

A red lucite sign blinked on: *Credit N. G.*

Finian frowned, hit the cancel lever and tried again. The third time he tried, his card was not returned.

Pushkyn! Damn the vindictive bastard.

He trudged on through the rain, never having felt so alone in his life. It was a queer sensation, the total absence of credit. Once, he remembered dimly, Pop had brought home a suit of clothes purchased with cash. It had caused a near-riot among Bala Cynwyd burghers.

Reaching his shabby apartment, Finian changed from the effete suit, scrubbed up as best he could, packed his few belongings into a satchel and walked back into the rain. He passed a crowd of workers from the local G/S visorphone plant. It specialized in treating receiver parts with reagents that would crack the plastic precisely eight months after installation.

A little smog had mixed with the rain, turning the street ghostly. At a corner booth Finian used his last few coins to make a toll call to the House of Sinatra in Los Angeles.

A sound truck rolled past, repeating over and over, "Gee-ess, Gee-ess, don't guess, it's bess — Take free shuttle at Exit 5-6 to the G/S Plaza — Gee-ess, don't — "

A dapper young man appeared on the screen, snapping his fingers.

"Hiyah. What can this gasser of a full-service bank do for you, Clyde?"

Finian showed his bank identification card.

"I'd like to withdraw my balance."

The banker came back into view a moment later. "Get lost. Your balance is nonesville. Garnished at noon. Unperformance and non-fulfilling of verbal contract, with waiver of cooperation. You signed it, Charlie."

"Damn it, I performed —" Finian began.

The screen had already blacked.

He staggered into the drifting smog. So Pushkyn had gone that far. Just for the sake of meanness. Well, Finian Smith would show the whole rotten bunch. They had angered him now. He wasn't quite witless, not yet.

Gee-ess, Gee-ess, it's bess came a lonely bellow. The polluted smog made Finian cough. His eyes smarted as he turned his pockets inside out.

A dollar left. Enough for a cup of coffee. No transportation. Just a single walking man in a cloud of industrial fumes and a long, empty night for thinking of Dolly.

Resolutely Finian hefted his satchel and started out to walk to Missouri.

#### IV

THIRTY-SIX days later Finian staggered into the National Record Office in Rolla. Thirty-six

frightening, alarming, eye-opening, solitary, transfiguring days they had been, too.

Days of dodging robot levacars whose spot-beams hunted him in the shadows beneath the elevated turnpikes, seeking to arrest him for pedestrianship.

Days of remembering his Pop. And nights too. Especially nights, thinking as he lay under a berry bush half-starved and chilly, how Pop had enjoyed prizefights, anti-social, uncooperative prizefights. How young Finian had been dragged to lonely boxcars or dim garages where furtive men watched the sport before it was finally stamped out in the name of bland humanity.

The world too was one bland custard, blandly happy. Except not really, as Finian, horrified, discovered.

No plant could function at total efficiency, at complete peak year after year. A low percentage of chronic unemployment had never been whipped by the cyclic theorists. Strange wild caravans of men and wives and children, human wolves almost, passed Finian occasionally on red-leaved backroads in Pennsylvania and Ohio. He almost fell into the hands of one such band. Thereupon he decided he must possess a weapon of self-defense at all costs. His belly he could protect by shoveling in wild berries and an occa-

sional stolen chunk of honeycomb. But his life, against such a seething pack of wild creatures as he had fled from on that lonely road, needed more dependable protection.

Difficult problem. Under law, weapons were prohibited except upon special occasions. What necessity for weapons when all was pleasant cooperation?

Yet the G/S guards carried weapons. So did the TTIC internal force. Finian was beginning to believe he knew why that might be so. Too early to tell, however. And the other problem pressed him to concentration upon it.

Weapon-devotees were even more suspect than pedestrians in the lonely country between metropolises. Occasionally Finian glimpsed a wire compound, acres and acres, against the sunburnt horizon. Manhattan Prison was too far for local DOCs to send recalcitrant Hoosier or Buckeye anti-obsols, so they were thrown into smaller country compounds, together with those few madmen who settled disputes with fists. Such compound inmates were described as juves, Finian remembered, passing one such wire enclosure on a white moonlit night and shuddering. He didn't recognize the term juve, but it obviously meant the middle-aged or geriatric specimens huddled with-

in the cages, a few defiantly wearing ancient gaudy jackets with mottoes stitched on them, forgotten anarchist slogans like Pfluger's Idle Hour Pin Barons.

ON THE outskirts of South Bend, Finian luckily came upon an obsolescence carnival.

Several thousand people swarmed across a treeless terrain in a housing project smash. Motorized workgangs stood at the development's fringe, waiting to set up new prefab Moorish Mansions to replace obsolete Five-Bedroom Geneva Chateaux.

Finian infiltrated the wild carnival crowd, ripping draperies and smashing furniture with feigned laughter ringing from his lips. When the carnival wore itself out near dawn and the workgangs rolled in through clouds of soy-fuel smoke, Finian filched a shiny flick-blade knife from a Boy Scout chopping up a last slab of plastic plaster and lath.

The Scout shrieked for the DOCs on duty. Finian was away and running through a hydroponic cornfield before he could be caught.

Now, dressed in his only presentable suit, last year's G/S Nubby by Oppenheimer, he flashed his personal identification card before the computer grid in the empty green marble rotunda of the National Record Office. Personal

identity was one quantity Pushkyn couldn't revoke.

Finian felt his fingers tingle as the grid scanned the card.

"Investigator Smith, Bond Number PA-5006, you are recognized."

"Permission to examine ownership statements for corporations over one billion, please."

"What year?" buzzed the mechanical voice.

"Not certain," Finian replied. "Could be as far back as 1980 or even 1970."

"Second tier from lowest level. Tube nine, your left."

It gave Finian a weird sensation, plummeting in the airtube and realizing he was dropping eighty stories into the depths of the nation's largest insane asylum. But legal transactions had proliferated so in the past decades, as had neurotic behavior, that only a combined institution and record office was feasible for saving space and offering a less-than-fatal end for hopeless maniacs.

The reading room below ground smelled of mold. Gray block walls heightened the unpleasant mood. Finian sat at the callout console. He manipulated the controls and spoke into the unit:

"Let me have the volume covering Goods/Service corporation for — ah — 1974, please."

Several minutes passed. A door

slid aside. A white male, perhaps seventy, with yellow-rimmed lack-luster eyes and a lantern jaw, shuffled in and waited with docile manner. The creature wore a seedy twill uniform, anciently cut.

"What do you have on any asset transfers for Goods/Services, please?" Finian asked.

The elderly gentleman did not so much as blink. He hesitated only a moment as the index system in his sick skull, instilled by hypnolearning, turned over record after invisible record. Finally he said vacantly, "No asset transfers."

"Nothing in the way of stock, even?"

"No asset transfers, no asset transfers."

"Thank you, that's all." But the man had already departed, needing no thanks. Finian turned to the console again wondering whether he could endure as many days as it might take:

"Let me have the volume covering Goods/Services corporation for 1975."

**A** TOTAL of eighteen hours went by, relieved only by three short naps aboveground, Finian sleeping in a magnolia bush on Rolla's outskirts, before he found what he wanted.

He'd worked through Goods/Services from its 1969 inception to 1997, interviewing assorted

madmen and women who shuffled in, reeled off figures and names or lack of them, then shuffled back out. Asset transfers exhausted itself as a lead. He tried register or directorship as well as deposition of tangible real-estate sale. Useless, useless. Only then did it slip back.

In some dim time in the past — Pushkyn had mentioned it once — public stock of G/S had been called off the market.

Once more he began with a different set of volumes, working his way down the years. In 1992 he located it: All certificates deemed.

The scent overpowered the must of the underground box like the smell of blood. He called out the volume covering Things to Come Incorporated for the same year. It was a naturalized Japanese weighing close to three hundred pounds.

One month after the G/S redemption came a callback by the board of TTIC. Finian almost wished the poor Japanese could appreciate tea. He'd have bought him a bucket, had he the money.

Tensely his fingers flew to the console.

"Two volumes, please. For 1992 and 1993. Covering Flotations without tangible assets."

When 1992 arrived (a mulatto with his face fixed in a perpetual grin) Finian was disappointed.

Nothing. The volume for 1993 (a strikingly voluptuous redhaired girl who had eyes that made him think hauntingly of Dolly) was another case entirely. Finian trembled:

"Give me what you have on holding companies, please."

The third was it, the redhead staring through him:

"Holders Limited. Ten thousand shares privately issued."

Finian was on his feet, sweating, his empty belly a-churn. "Officers, please."

"Chairman of the board, Alvah Pharoh."

"There must be some mistake. Uh — recheck, please. What is the name?"

"Full legal name Alvah Robert Loudermilk Pharoh."

*A florid old gentleman with dewlaps and blue, vaguely crossed — by heaven!*

Finian almost forgot to return the volume to its detention cell after he got the names of the other registered corporate executives, which meant nothing to him. But Alvah Robert Loudermilk Pharoh most certainly did.

Finian wondered, as he left the National Record building and turned his face east again, what had possessed the old man to think it safe to occasionally appear as head of both companies. Not that he appeared often, mind you. The painting *must* have been



a slip. So too the appearance on the hydrofoiler, displeasing his underlings. Senility? Senility and a strength that had refused to completely drain away, as the dewlaps lengthened?

Hungry and tattered though he was, Finian felt renewed as he threw himself into the weary tramp back to Manhattan. The flick-blade knife armed him. So did the knowledge that even the most mighty, even those who kept the plant running at all costs, including the cost of sloth, could occasionally slip.

And they still had Dolly.

V

**A** HEAD in the gloomy purple twilight, giant rats were squealing after blood.

Quickening his step, Finian unshipped the flick-knife. Making headway was hard. This particular section of the Hudson Bluffs National Dump was a miniature mountain range of discarded but eminently serviceable — except for the usual 'engineered-to-fail' tubes and cracked cabinets — solid sets. To the east behind the rubble the towers of Manhattan Prison thrust into the darkening sky.

Finian walked rapidly away from the squee-squee of the rats. He'd glimpsed a pack of them earlier, down by the Tunnel at

the far end of the hundred-thousand-acre junk tract. They were nearly three feet long from drinking the waste spewed out by the pharmaceutical factories upriver. Hoping to avoid a meeting with needly fangs, Finian was suddenly arrested by a fresh sound.

A human voice, in fright.

He doubled back in his tracks, cold sweat all over him. The vitaminized beasts were attacking a real person!

Finian rounded a solid heap. A little wisp-haired balloon of a man in a ragged gray smock was backed against a trash peak, trying vainly to swing at three of the rats, armed only with a plastic leg broken from a solido console. The man's left trouser leg was shredded, black-shining with blood. The blood maddened the rats. They danced and snapped and squee-squeed and made the little man even more pale.

Finian snatched up a solido cabinet and heaved. One of the rats yipped, turned and scuttled at Finian like a small furry tank. Shaking, Finian stood his ground. He tried to dodge the creature's leap but was not agile enough. Hellish teeth sank into his arm.

Finian jammed his flick-knife into the smelly hair at the base of the rat's brain. Squirted blood like a fountain, the rat flipped over in the air and gave a death-squeee. Its comrades received solid

whacks between the eyes from the other man. They turned tail and vanished.

"Let me see that arm," said the man, a filthy specter with moist, disappointed eyes. "Oh, not good at all. Come along. I'm a doctor. Humphrey Cove."

Finian gaped as he was lead along the bluff. "A doctor? In the National Dump?"

"I live here. Never mind, I'll explain later. I have a shack. Hurry, we don't want those rat toxins to run through you. I think I have immunization. Oh, I was really done for until you came along."

The small doctor giggled as he hustled Finian along. Finian was not too sure he approved of his would-be savior. In spite of Dr. Cove's rather pitiful mien, there was a certain unsteadiness in his wet eyes. He clucked and talked to himself as he led the way to a ramshackle structure nearly the size of a small private dwelling, constructed solely of panels from solido consoles jerryrigged together with wire and other scrap materials.

"No one comes here. No humans. Only the littersweep convoys from up and down the coast, all mech-driven. The only people I ever talk with are the poor juves in the prison. What's your name? What are you doing here?"

At the hovel entrance Cove

suddenly halted, stared at Finian and turned pale.

"Did you come to arrest —?" Finian shook his head.

"I came to get into Manhattan."

"Via the Dumps?" Cove blinked suspiciously. "There's the Tunnel."

"To use the Tunnel, you have to be a priest going in for last rites. Or a coroner or a psychiatry student. Or have a DOC pass. I watched the Tunnel three hours." Suddenly Finian had an impulse to trust this odd little person: "I have no pass. I'll be entering the prison illegally."

"Well, then! Come inside, do come inside!"

**N**AMES were exchanged again, Cove having forgotten he'd given his. From behind a triple stack of ancient medical texts Cove said he'd rescued from dump piles, the doctor produced a frowsy leather-plas diagnostic kit. He clamped the analyzer to Finian's upper arm and switched on the battery. A whir. A moment later the proper medication had been pressure-sprayed through Finian's epidermal cells.

Cove watched with proud glowing eyes, saying as he unstrapped the unit:

"A miracle I found this kit, I'll tell you. Three years ago. The only persons who use it are the poor juves. No regular medical

help for them, I'm afraid. So I've a skiff. Actually an old levacar inverted. I paddle across once a month after dark." He giggled. "The DOCs at the Tunnel post would psych me if I got caught. But I feel I'm doing my bit to keep the anti-obs content in their unhappiness."

Through a rift in the wall Cove's moist eyes sought the darkening towers. His voice was quickly vengeful.

"I'd like to see those buildings fall to ash. Margarita, ah poor Margarita." He whipped his head around eyes almost as vicious as those of the rats. "Who are you? If this is all a clever trap to smoke me out —"

"No trap," Finian assured him. "I'll tell you about it. But do you have any food?"

Cove nodded and fetched a brown gallon pharmaceutical bottle, instructing Finian to drink.

"Protein and vitamins. Distill it myself from the drug sludge in the river. After you drink I may or may not give you one of the soy bars I get from the juves. When their wives bear children, it's the only way they can pay, you know. They're very proud, always pay."

Cove squatted with difficulty, an oddly savage little man in the fading light.

"Whether I let you have a soy bar depends on your story. If

you're an enemy, I can run away and leave you to wander the Dumps at night. You won't last long with the rats, being a stranger."

"There's a woman over on that island I have to find," said Finian, and launched out.

As he recounted his tale, careful not to become too emotional about it, he noticed a growing excitement in Cove's damp eyes. Finally, when he had concluded, Cove leaped up.

"Capital, Smith, that's capital. Let me help. Let me ferry you across."

Finian smiled grudgingly. "Okay. I was prepared to swim it."

"The sludge would poison you before you got halfway."

"What's your stake in this, Cove? I mean, this food pays me back for the rats."

Cove's little eyes were miserable.

"Margarita. My wife. She died over there."

**P**AINTFULLY the story came out, dredged from an unhappy past:

Cove had been a plastic surgeon by specialty, in the employ of TTIC at its Bangor Personality Salon. But a quirk in his nature made him rebel against the work, permitted him to fall prey to dangerous Galbraither notions. His wife had informed on him.

Cove discovered it before the TTIC police could arrest him. He fled to the outskirts of Bangor, hiding there in the woods while a few reluctant friends supplied him with food. TTIC industrial police combed the woods with talk-horns, threatening to psych his wife into anti-obsol attitudes if he didn't surrender.

"The filth!" Cove rocked on his haunches. "I thought it was a trick, a lever. I ran away. Margarita, poor thing, was on their side. She couldn't help what she did. She came of a respected family. TTIC middle management. But a year later I found out. They did it anyway. Oh, they smile and smile and treat the mob kindly. But underneath, when they're opposed — I learned Margarita had been sentenced to Manhattan. It took me another nine months to get here and find means of crossing. By that time she'd died of pneumonia. No antibiotics allowed the juves, you see. Juves are worthless. She died." Cove rocked and rocked, wild-eyed. "Died, died."

"Doctor Cove, will you help me get across?"

"Of course, of course. But to hunt that pilot plant, a knife won't be much good. The moment you're discovered they'll set on you like wild dogs."

"Then I'll need something else."

Finian's brain ran rapidly with

his career with G/S. He recalled Leveranz, an unfortunate operative charged with a dangerous penetration of the TTIC Marketing Office in Beirut.

"I knew a man once who was bombed. Is there anything here —?" Finian's gesture swept the shack and dump beyond. "Do you remember enough, even if we could find an explosive source, to bomb me?"

The moist eyes of Cove widened with malicious delight. "Blow them up?"

Now Finian himself felt hard and cold.

"I just might, if they've hurt her."

"Possibly we could use the charger pack from an old solidio." Cove was warming to the challenge. "Yes, we very well might. Extremely miniaturized. I'd have to check the formula but I think I have a chem text in that pile. And a military medicine volume, too." He began to tear through the books. "No anesthesia, or precious little. Perhaps I could knock you out."

"What for a trigger?" Finian questioned. He showed his mouth. "I have this empty socket where I carried a camera once."

Chortling, Cove scuffled among his belongings and produced a cardboard carton full of ivory chips of all sizes.

"Why, that ought to work,

Smith. The miserable juves aren't fluoridated either. I do quite a few extractions. Imagine a plastic surgeon doing extractions! Let's see, give me a minute to find the chem text . . ."

Dr. Humphrey Cove unearthed the text in two minutes. The rest took four days.

Finian suffered excruciatingly, especially during the operation. Cove kept smacking him on the head with a solidio leg when the pain grew too hideous. Finian dug his nails into his palms and thought of murmurous summer evenings on the back porch in Bala Cynwyd, and vowed in his pain-streaked mind the hurt was worth it if only he had a means to strike at them if they'd hurt Dolly, his own Dolly.

When he was ready to enter the prison, his left foot flesh carried a small capsule that would detonate an explosive force when the yellowing tooth in his dead socket was turned a proper one-half turn in its clumsily hand-chiseled housing.

An old trick, bombing. A relic of the Triple Play War. But it gave Finian a little more courage to go hunting death.

**I**N AN unpleasant mist-clammy midnight, Dr. Cove paddled the improvised skiff through the sticky penicillin waste forming a crust on the Hudson, to the dilapi-

dated pier that once belonged to the Cunard division of G/S. Off down black, ruined streets distant reddish lights pulsed. Cove shook his hand fervently.

"I hope you kill them. I hope you don't cooperate and kill them all."

Then the skiff slithered away into the smelly broth. Finian shivered and walked.

Three blocks from the pier a ragged band of thirty-odd men and women, with a couple of malnourished youngsters hanging at the fringes, slipped out of an alley and closed around him.

They hissed and backed a terrified Finian against a polybrick wall. The leader of the juve pack, an oldster of eighty in tapered blue denim trousers and an anti-quarian jacket spangled with fake platinum stars and buckles swaggered up and down, thumbs hooked in a six-inch belt.

"Sending DOCs into the streets these days, are they, sonny?"

"I'm no DOC." Finian searched the hostile eyes for succor. There was none.

"We eat DOCs alive in the prison. They step off the guard post, we swallow 'em up and chew 'em to pieces, sonnyboy."

"A DOC stew tonight! Oh, wunnerful!" piped a seven-year-old.

"Scream a little for us, will you please?" said the aging juve with a smile, shuffling forward.

Finian thought of the flick-knife and whipped it out. Another sibilant hiss ran from mouth to mouth as the blade caught the distant red glow.

"Look, don't kill me. See this? It's a knife, a real knife. You people can recognize a genuine useful antique twentieth-century artifact, can't you? Non-obsolete. Non-obsolete, see? Still works?"

A touched stud and the blade retracted. Another touch and it sprang out.

"Would I be a DOC and carry this?"

The juve leader had an almost religious expression on his face. His hand shook as he extended it.

"Uh — could you — leave me see?"

Finian thrust it into his hand.

"Yours. Listen, take it." A dark, malicious streak forced out the next words. "Could you make more? Why don't you try? Now you have a pattern. Then you wouldn't have to wait for the DOCs to leave the guard post. Then a lot of you could pay them a visit."

Whispering over their icon, the juves melted into the night.

## VI

KEEPING to back streets, Finian crossed Bway several blocks above a strange complex

of glittering red lights. Cove had told him it was the prison recreation area, a kind of open plaza known, unpronounceably, as Timesq. Hurrying on, he reached Parkave.

Several blocks south he saw a white chain working its way across the ruined thoroughfare. Approaching in the cover of shadows, he gazed up at a glistening glass structure with windows painted over. Then he looked down to the street again.

The white chain came apart into individual females, double-timing along between a cordon of TTIC industrial guards. One chain rushed west, another east, vanishing into the building. Finian skulked, grinning mirthlessly, estimating the time to be somewhere in the neighborhood of eleven at night. Protected, the pilot plant nursing staff was changing shift. Cove had told Finian about the nurses, and also what might be done. He hurried back toward Bway.

The recreation area was curiously deserted of juves at this hour. Finian wondered whether the flick-knife was really that much of a talisman. It must be, since he'd seen no juves after the first encounter. Cove said there were several hundred thousand on the island. Perhaps they'd gone underground to the ruined transportation tubes.

Timesq featured open shops subsidized out of national taxes as a sop to the theory of rehabilitation . . . antiques, genuine meat-burgers, bizarre novelty stores where articles were actually displayed on open counters instead of behind automated windows. But the shops were actually intended to pander to the vices of the juves. Else why would Finian have been able to slip so easily into a deserted costumer's?

Half-starved, his shanks frozen by wind whistling under the ancient white uniform and the musty gray wig prickling his ears, Finian dozed the daylight hours away in an alley, blearily on the alert for juves. He saw one large pack passing a block away, several hundred on the run. They didn't see him. Otherwise he was undisturbed until night fell again.

Midway between the hotel which apparently served as nurse's quarters and the ruined liquor building, Finian ducked into one of the double-timing white chains as the eleven o'clock shift changed. He hoped his male shoes wouldn't be too noticeable. But the street was dark. The hundred or so nurses were on dangerous extra-pay duty from the way they rushed along between the guard cordons, not speaking, intent only on gaining the safety of the pilot plant.

As in all hospitals, lights

burned low in the marble mausoleum of a lobby as the nurses fanned out to the various tube banks. Finian spied a rest room next to a boarded-up newsstand, slipped inside and waited half an hour, out of sight.

Then he returned to the lobby. A late nurse was hurrying to the tubes. Outside, the TTIC guard cordons were no more. Finian ran up behind the nurse, thinking smugly that it had been easy so far. He'd remembered to touch no doors, in case there were a sweatprint check.

THE nurse gave a frightened *kkk* sound as Finian looped his elbow around her neck.

"Where's the prototype kept, lady? Tell me or I'll crack you in half."

"Tw — twelve," came the panicky answer. "I can't breathe!"

"You won't ever again unless you take me up there."

"It's not my floor — "

"With lights out who'll know? There's the tube. Inside! Don't speak to anyone. Don't even raise an eyebrow, or I'll throttle you."

In the deserted tube the alarmed woman, elderly, eyed Finian's wig, all too obvious in the full illumination.

"What are you, some kind of degenerate?"

"Yes, but not the kind you think."

Finian laughed, feeling frightened and brave all at once.

On twelve, isolated pools of radiance interspersed vast islands of aseptic black. Three nurses clustered at a floor desk to the right. Finian's terrified victim led him to the left.

Double doors loomed at the far corridor end. Why was it so easy? Finian felt vague alarm as he shoved the old lady through the doors. The isolation, that must be it, he reasoned. The improbable isolation here on Manhattan where no investigator would dream of looking for a pilot plant.

Still, Pushkyn's people had discovered it by molecular-triangulation sonics. Were they penetrating even now?

In the chamber a white blur stretched naked in the warm, purified air. Finian held tight to the old nurse's arm and approached the dreaming girl. The raspberry mark stood out black in the faint gleam from the half-open door of an attached dispensary. There encephalographs and other equipment winked, chromed and cold.

"Dolly?" Finian's lips felt like shreds of paper, crinkled, dry. "Dolly, hear me?"

A vacuous mewing sound came from the girl. She twisted deeper in silk coverlets.

"Wake her," Finian ordered. "You're a madman! I don't

know how. I'm on six, neurosearch."

He shoved her rudely. "There must be a chart in the dispensary."

Finian had to threaten to cuff her several times before she tremblingly translated the medical Latin in the last twelve thick casebooks on the dispensary shelf. From the section marked *Emergency Antidotal Procedures* she read out the correct mix of ampoules from the wall-wide freezer.

Finian was acutely conscious of the silence of the great dark room, the whisper of Dolly's breathing from the bed, the rush of controlled air in and out of blowers. Time was moving inexorably. What he would do when and if he wakened Dolly he was not precisely sure. All he could tell was that he must talk to her. Talking to her once was what he had worked and tramped and almost died for.

The pressuredermic barrel gleamed in the light. Finian snatched it from the nurse.

"If you've tricked me — I don't take to hurting women, but I will!"

"I swear to Loudermilk I didn't. Only please don't hurt me."

"In there," Finian instructed. He latched the dispensary door behind her. There was no visor-phone inside. He would be safe a moment longer.

WITH SHAKING hands he pressed the instilling cup near the raspberry mark, and plunged.

Slowly, slowly, the naked girl rolled over, lids fluttering drowsily. Finian crouched by the bed. His hand knotted up in the silken sheets. He'd turned up a rheostat to provide a gleam for judging her eyes. Doll-blue, they flew open —

Blank, unknowing.

"Why, hello there." The voice tormented him. It was so squeaking, so silly. "Whatever are you doing in Dream's bedroo — Dream's bed —"

Like a broken mechanism the voice ran down. One of her voluptuous hands crept tentatively toward his.

"Finian?"

"Oh, my God, my God, Dolly." He buried his head on her shoulder, almost crying.

When he had controlled himself sufficiently to talk, he asked her what it was like.

"Not too terrible." Dolly's voice now, not her body but for the mark, only her voice trying painfully to re-form old associations. "When we moved . . . Well, it was luck and a little moral compromise that snared me a chance to be the prototype."

"Do you remember anything? I mean, when you're under?"

"A little. A very little. Far down in my head, like the bottom of a

well. I won't in a week or two, so they say."

"It's wrong, Dolly! It's wrong for them to change you!"

She laughed tolerantly, not a little sadly.

"Those wild old ideas of yours again."

"I love you, Dolly. I want you the way you were."

"Impossible, Fin. My body's changed." One hand lifted the hem of the sheet. "It's part of the price for being the prototype. I nearly died when my parents made us move. I wasn't strong. I'm not much stronger now. This —" a gesture to the room — "when they're finished with me, in a week or two, I'll never be able to go back. The prototype can't. Other women can, the change isn't so deep when it's purchased. But in return I'll receive more money than most women ever see. I wish you hadn't come here, Fin. I'd nearly gotten over you."

"Take out the contacts, Dolly. Then tell me it's all over."

"Fin, I can't. They're permanent." She clutched his arm. "If you're caught here —"

Rapidly he told her of what he'd learned at the National Record Office. "Some kind of conspiracy, Dolly. Awful, awful. Hell, I'm not bright enough to fathom what it means. Maybe Pop could have. I'm just certain I want you

out before this crazy doublecross blows right up."

Dolly hesitated. "I'm not sure. My mind's full of someone else — "

"Don't let him frighten you," said a voice. "He's done anyway."

Caught, heartbeat wild and racing, Finian turned as all the lights blazed up in the room. Dolly shrieked and burrowed under the sheet.

Outside the closing panel Finian glimpsed a phalanx of armed TTIC police. The three men inside moved swiftly toward him, Sprool and Pushkyn shoulder to shoulder, and shuffling behind, Alvah Robert Loudermilk Pharaoh with his dewlaps jiggling and his blue, vaguely crossed eyes filled with fright.

"WE SHOULD of killed the jerko," Pushkyn offered.

"Be quiet," Sprool breathed tightly, thinking hard.

"No one listens to me," Alvah Robert Loudermilk Pharaoh whined. "No one listens any more even though I'm the chief executive of Holders."

"You simpleton!" Sprool spun on him, barely able to control his fury. "You incredible wreck! I wish Pushkyn and I had retired you to a senility farm long ago. If your addled brain could have understood it wasn't safe for you to go around making public appear-

ances! Having your portrait painted!"

"Holders is my firm!"

"It was. Before your brains turned to mashed potatoes," said Pushkyn.

"You wouldn't have penetrated the pilot plant, would you, Pushkyn?" Finian was suddenly enraged, and beginning to understand. "Even though you knew where it was."

Pushkyn sneered. "Whaddya think, put sand in the wheels? Always the funny finko, huh? If it wasn't for me. Sprool and a few others on both sides, running the show while this old bonebag sits on the Holders board — "

"He means to say," Sprool put in, somewhat sadly, "we have done our best to keep the plant running. You, Fin, have done your best to stop it."

"How did you find me?" Finian demanded.

Sprool shrugged. "See-ray."

"I never touched a doorknob anywhere!"

"There is a false socket in your head. Every person entering or leaving this plant is rayed for dental coding. Yours failed to check. It took a few minutes to collect Pushkyn. And the old man. I want him to see the fruits of his senility. We vertijetted."

"Ah, damn," said Finian, impotently.

"I very nearly admire you,"

Sprool told him. "In proper circumstances you might have filled a responsible position with Holders. Do you realize what a difficult and exciting enterprise it is to run this world, Fin?"

"I realize you sold everybody a bill of goods, kept them soft, sucked their guts out."

"Would you rather have howling millions out of work and rioting?"

"Yes! Yes. I mean, no. I don't want people to starve, but this way — I'd rather have some guts in life. Trouble and guts."

"Trouble we have, Finian," Sprool returned with a sigh. "Do you know what we saw as we came over the Tunnel in the vertijet? The DOC post in ruins. The juves are breaking out, Fin, actually breaking out. Most of them are dead, of course. But several hundred escaped. There's a pitched battle going on in Jersey this minute. The juves will die as soon as I give the mobilization order. A few may get away and start in other cities, inciting to riot, pulling down what we've built so carefully to insure everyone a decent life. Both TTIC and G/S are alerting industrial guards trained for trouble such as this. We'll also have to apply considerable pressure for the DOCs to move. But we'll win. We gave up war long ago, Fin. We won't permit another to start."

"The creeps had knives!" Pushkyn bellowed. "Real knives! You stupid, did you — ?"

"I think so," Finian looked up. "I hope so."

A GAIN Sprool sighed, almost sympathetically.

"Fin, Fin. You seem to think we're evil men. We're not. We're businessmen. We didn't begin the system. We only inherited it. But you've never understood, have you? Always, I think, you resented us as a result of what your father taught you." Sprool was white now, impassioned. "We had no choice! Either we maintained calm or — "

"You changed Dolly! I don't understand your theories beyond that!"

Sprool outshouted him: "The alternative to a rocked boat is chaos!"

"There's got to be another way."

"Go to the guard post! See the mangled bodies and then say that."

"I don't care, Sprool! I'm taking Dolly off the island."

"Creep, you won't set one foot from here."

Finian peeled his lips back.

"Look at the tooth, Lyman. You know what was there before." He wagged his left foot. "I'm bombed. The tooth will set it off. Either instantaneously or on

timed delay. Stop me from walking out with Dolly and find out."

"Salinghams wanted my portrait —" the florid old gentleman began.

"Bluffer! Lousy, rotten bluffer!" Screaming, Pushkyn rushed forward.

Sprool's hand flew up.

"Don't! I believe him."

For the first time Finian Smith saw Sprool perspiring.

"He's the kind to do it, Pushkyn. I don't want slaughter here, too. So you keep quiet and remember who's senior trouble-shooter."

Cold, shrewd lights glittered in Sprool's eyes. "Fin, what guarantee can you offer if we release this woman to you, allow her to go with you under duress?"

"No."

Heads swung, startled. Dolly went on slowly:

"I think — I want —"

A disgusted sigh came from Sprool's lips. He controlled himself. "Very well, Fin. If we permit you to leave, what guarantees do you offer that you'll cause no further trouble? We'll have our hands full quelling the disturbances the juves will start. It hasn't gotten too far out of hand yet. But if I don't give the mobilization order, it could go nationwide. Even to other countries. I have to be around to stop it. It can be done, even though I don't much

like removing the velvet glove."

"Guarantees?" said Finian. "My word. That's all."

Sprool walked quickly to the door and opened it. The threatening knot of industrial police still waited in the shadows. Finian bundled Dolly into the bedclothes and moved her toward the entrance as Sprool said, "Let him pass."

"I won't stand for it!" Pushkyn leaped forward and landed a solid one that rocked Finian on his heels. Then Sprool snapped his fingers. The TTIC police carried the foam-lipped Pushkyn into the dispensary.

**T**REMBLING, suddenly cold and trembling clear through, Finian made an effort to keep his face an inflexible mask as he guided Dolly through the aisle between the guards. He hoped she wouldn't question him, wouldn't relent until they were free. Sick fear engulfed him as he touched the tip of his tongue gingerly to the fake tooth while the tube shot down.

Dolly leaned on his shoulder, her hair warm. She made frightened mewing sounds. Finian shepherded her into the night, began the long, terrible walk to the Tunnel, hoping she wouldn't come to her senses until they reached the opposite shore. In time she'd be herself again. That much he

could give her even if his search had been all for nothing.

The DOC post at the Tunnel entrance was afire. Juve corpses sprawled everywhere.

Midway along the empty tunnel Finian halted. A figure cowered toward them.

"Capital, oh, marvelous!" Humphrey Cove trilled, stepping over a dead DOC's open-mouthed head. "Three hundred of them got out, running for their lives. I think it will spread this time. The local camps, the jobless — full-scale! There are so many really lovely pockets of resistance!"

"Shut up and walk." Finian pushed Cove back toward the Jersey side.

"What in heaven's name is wrong with you, Smith?"

"Armed." Finian whispered it so Dolly couldn't hear. "A guy hit me, I'm armed. Can't have more than half an hour before I blow. Cove, don't you say anything. When we're outside, you take care of this girl, understand? Watch out for her until she recovers. She's free of them, I bought her that much."

They passed a shrilling visor-phone in a lighted kiosk at the far Tunnel mouth. A DOC alert was being scheduled for Philadelphia. Juve gangs were forming in the streets there, hand-made knives were appearing. The mask was off. Full mobilization of com-

bin'd TTIC and G/S industrial police was being ordered by Sprool. Cove clapped his hands.

Rain was falling as Finian led Dolly out of the Tunnel. Three DOC vertijets from the south were homing on Manhattan, a-gleam with emergency lights. Dolly murmured. Finian lifted her chin and stared into the doll-blue eyes a moment, conscious of the bomb working, working toward detonation in the flesh of his foot. He couldn't even feel the death seed. Wasn't that a joke?

"Cove'll take care of you," Finian said. He kissed her. Bewildered, Dolly called for him as he turned and walked rapidly away, not seeing the rain or the littered bodies.

He had gone but a dozen steps when something felled him and brought the dark.

**P**AİN, incredible pain was his first sensation.

Then a warmth of flesh. Dolly bending over him. Through a slatted section of solido panel he saw vertijets winking over Manhattan. Finian wriggled, then struggled up, screaming:

"My leg . . . what happened?" Crying, Dolly pressed him down.

"Cove did it. Cove operated. He hates them, Fin. He hates TTIC. Something about his wife. He said you ought to live, even

with — I wish my mind would straighten out. I can't say things all right yet."

Finian fought the terror, the dull-fire agony. "Where is he?"

Dolly shuddered. "He packed it in a valise and ran for the Tunnel."

In a burst of fire the center of Manhattan Prison blew up.

When the reverberations and Dolly's screams had stopped, the two of them clung together, listening to the hysterical automatic sirens at both ends of the island wailing as they hadn't wailed since the Triple Play War. Confused, hurting, glad of life, guilty and fearlessly glad and yet sick-

ened by the suddenly-swarming sky full of vertijets, their flaring emergency lights promising violence, violence across the land, violence maybe everywhere, Finian clutched the girl to his shoulder and stared at the inferno of the prison island.

"My God, I think I started a war, Dolly. Sprool said — I didn't mean to start —"

The words tore out of him, almost animal: "Is this the only way?"

Dolly sobbed. There wasn't any other answer, except the sirens multiplying all around in the disrupted night.

— JOHN JAKES

## ★★★★★ FORECAST

Next issue's cover is a hot and lively spectacle by Dember. When you see it your first thought is likely to be, "Mercury?", and your second, "no, of course not — not with an atmosphere!" Well, you shouldn't take anything for granted. It is Mercury. For the purposes of this story, anyway, it does have an atmosphere — and if you want to know how come, we refer you to the story itself. The title is *Hot Planet*. The author is one who isn't in the habit of making technical blunders . . . and who, by the way, also wrote *The Green World* for the current issue of our companion magazine, *If*. His name: Hal Clement. This marks his return to *Galaxy* after an absence of more than a decade . . . one more milestone in our endless endeavor to bring back the best established writers and to locate the most promising new ones.

Naturally there's more in the issue — Willy Ley; the conclusion of Cliff Simak's fine *Here Gather the Stars* . . . and a little "non-fiction" item that we think you'll like. The title is *The Great Nebraska Sea*. It isn't fact today — but who knows whether it will be by the time our August issue goes on sale?

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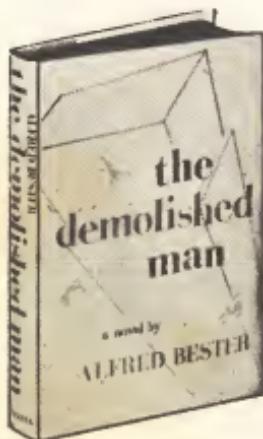
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